

APPENDIX IV

Theme Opportunities in the Landscape

The journals of the Expedition provide glimpses into the world through which Lewis and Clark traveled.

In the following maps and tables, some of these potential theme possibilities are explored and tied to the landscape.

A number of these are then chosen for development into storyline examples from which interpretive sign text could be distilled.

APPENDIX IV THEMELOCATIONS

Some good locations for interstate interpretation

	Locations Links	Tourism Country	Regional Theme	Opportunity
A	Shelby Exit #209 off I 15	Russell	Lewis Through Blackfoot Country	Entrance Farthest Point West to Vaughn (US 2) Byway
B	Ulm Exit #270 off I 15	Russell	Struggle on the Missouri	Entrance to Ulm - Wolf Creek Byway (I 15 Frontage Road); Ulm Pishkun Bison Jump State Park
C	Gates of the Mountains Exit #209 off I 15	Gold West	Struggle on the Missouri	Access to Missouri River, Gates of the Mountains canyon
D	Missoula Exit off of I 90	Glacier	Lewis and Clark Through the Bitterroot	Entrance Bitterroot Valley (US 93), Lolo Trail (US 12) a Blackfoot River Corridor (MT 200)
E	Bozeman Exit off of I 90	Yellowstone	Clark Down the Yellowstone	
F	Hathaway Rest Area Off I 94	Custer	Clark Down the Yellowstone	Viewpoint
G	Glendive Off I 94	Custer	Clark Down the Yellowstone	

APPENDIX IV THEME LOCATIONS

SOME GOOD LOCATIONS FOR HIGHWAY INTERPRETATION

	Wayside Interpretive Site Locations	Road Segment	Tourism Country
1	Confluence of Milk and Porcupine creeks	US 2 Bainville to Glasgow	Missouri
2	Judith Landing	Secondary 236: Big Sandy to Winifred	Russell
	Two Medicine River	US 89: Vaughn to Browning	Russell, Glacier
	Monture Fishing Access Site	MT 200: Blackfoot to Simms	Glacier, Russell
	Pelican Island Fishing Access Site	I 15 Frontage Road: Ulm to Wolf Creek	Gold West
6	Augusta	MT 21: Augusta to Vaughn	Russell
7	Toston	US 287: Helena to Three Forks	Gold West
8	La Hood	MT 2: Three Forks to Whitehall	Gold West
9	5 miles N of Twin Bridges: Immediately S of existing L&C site	MT 41: Whitehall to Dillon	Gold West
10	Clark's Lookout	Road 311 off MT 41: Whitehall to Dillon	Gold West
11	Big Hole Pass and/or Badger Pass (looking west)	Road 43 & 278: Lost Pass to Wisdom to Dillon	Gold West
12	Hannon Memorial Fishing Access Site	US 93: Bitterroot Valley	Glacier
13	Howard Creek	US 12: Lolo to Lolo Pass	Glacier
14	Powder River Crossing	Hwy 10: 17 mile segment from Terry back to I 94	Custer

APPENDIX IV THEME LOCATIONS

Some good vista house opportunities

	Location	Region	Access	Regional Theme	View
①	Fort Union	Custer	Secondary 327	Clark Down the Yellowstone	Yellowstone, Missouri confluence from a highpoint NW of fort
②	Missouri Breaks High Point	Missouri	Knox Ridge Road	Struggle on the Missouri	Lower Missouri River; Missouri Breaks; Little Rocky Mountains
③	Decision Point	Russell	US 87	Struggle on the Missouri	Missouri-Marias confluence; north up Marias River Canyon
④	Farthest Point West	Glacier	US 2	Lewis through Blackfoot Country	Rollings hills to Rocky Mountains; Upper Marias River drainage
⑤	East of Rogers Pass	Russell	MT 200	Lewis through Blackfoot Country	Prairie from Sun River to Square Butte; Missouri River valley; mountains to the west
⑥	Lemhi Pass	Glacier	Road 300	Lewis and Clark through the Bitterroots	
⑦	Big Hole Pass	Gold West	Secondary 278	To the Headwaters	Three Forks confluence area
⑧	Headwaters State Park	Gold West	Secondary 286	To the Headwaters	Three Forks confluence area
⑨	Custer Rest Area	Custer	I 94	Clark Down the Yellowstone	Middle Yellowstone River valley

APPENDIX IV THEME LOCATIONS

Some backroad opportunities

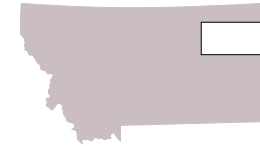
	Location	Tourism Country	Theme
A	Lower Missouri (southside of river from Wolf Point to Ft. Peck: MT 13 to MT 24)	Missouri	Struggle on the Missouri
B	Missouri Breaks Backcountry Byway (east of Winifred)	Missouri	Struggle on the Missouri
C	Marias River Canyon (off US 87 near Loma)	Russell	Lewis Through Blackfoot Country
D	Blackfoot River Recreation Corridor (9 mile loop off MT 200)	Glacier	Lewis Through Blackfoot Country
E	Horse Prairie Grant to Bannack (Secondary 324 to Secondary 278)	Gold West	To the Headwaters
F	Lemhi Pass Road (off Secondary 324)	Glacier	Lewis and Clark Through the Bitterroots

APPENDIX IV **THEME LOCATIONS**

Some good recreation opportunities

	Location	Tourism Country	Recreation Opportunity	Regional Theme
①	Lower Missouri River to Ft. Union	Missouri	Float trip, Trail	Struggle on the Missouri
②	Missouri Breaks Judith Landing - US 191	Missouri, Russell	Float trip, Trail	Struggle on the Missouri
③	White Cliffs Fort Benton - Judith Landing	Russell	Float trip	Struggle on the Missouri
④	Rogers Pass to Lewis and Clark Pass	Gold West	Continental Trail	Lewis through Blackfoot Country
⑤	Alice Creek over Lewis and Clark Pass and Beyond	Gold West	Trail	Lewis through Blackfoot Country
⑥	Marias River	Russell, Glacier	Trail	Lewis through Blackfoot Country
⑦	Blackfoot River	Glacier	Trail on old RR grade	Lewis through Blackfoot Country
⑧	Missouri River Canyon below Hauser Dam	Gold West	Trail	Struggle on the Missouri
⑨	Three Forks and down the Marias River	Gold West	Horse Trail	Lewis and Clark through the Bitterroots
⑩	Horse Prairie Grant - Bannack	Gold West	Horse Trail	Lewis and Clark through the Bitterroots
⑪	Big Hole Valley	Gold West	Trail	Lewis and Clark through the Bitterroots
⑫	Lolo Pass	Glacier	Trail	Lewis and Clark through the Bitterroots

APPENDIX IV THEME LOCATIONS

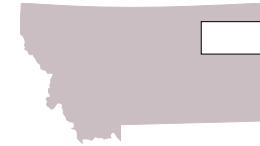


OPPORTUNITIES ON THE LANDSCAPE

MISSOURI COUNTRY I



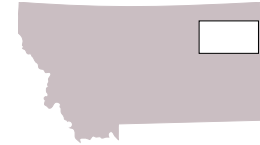
APPENDIX IV **THEME LOCATIONS**



MISSOURI COUNTRY I—POTENTIAL

AREA	DATE & CAMPSITE	JOURNAL OBSERVATIONS	NATURAL HISTORY	HUMAN HISTORY
	Missouri Country Regional Theme	Absence of timber on plains; trees & shrubs along river Abundant bison, elk, deer, antelope & beaver Frequent encounters with grizzlies Frequent evidence of tribal presence	High Plains ecosystem Game of the High Plains Grizzlies on the High Plains	Subsistence of High Plains tribes Role of grizzlies in Plains culture Tribes of the High Plains
A	April 27, 1805 Vicinity of Nohly, Richland County	Mouth of Yellowstone: Lewis looking for site for fort & trading post	Importance of confluence of two major western rivers; their different characters	Fort Union built near confluence in 1832 as fur trading center for region
	April 28, 1805 Otis Creek, Richland Co.	Coal in great abundance Large amounts of salt on shore	Coal formations of e. Montana Salt as indicator of arid lands	History of coal mining in eastern Montana
	April 29, 1805 Big Muddy Creek	First "brown bear" (grizzly) killed "Bighorn animals" along Missouri & up Big Muddy Creek	L & C attitudes toward hunting grizzlies Bighorn sheep as plains animal	Tribal methods of hunting grizzlies Role of bighorns in Plains culture
B	April 30, 1805 Vicinity of Brockton	Coal seams 6' thick Sacajawea brought Clark sample of buffalo currant Passed lodges built of drift wood	See April 28, 1805 Sacajawea's role in collecting & identifying plants	See April 28, 1805 Tribal uses of buffalo currant Travel lodges of Plains tribes
	Lewis & Main Party Eastbound August 6, 1806 Ten miles east of Poplar	Violent thunderstorm during night High winds forced early camp	Summer weather on High Plains and its causes	
	May 1, 1805 Elkhorn Point, Roosevelt Co.	Waves several feet high Indian dog following camp	Prevailing winds on the plains	Role of dogs in Plains culture
	May 2, 1805 Hwy 251 Crossing	Snowed 1 inch; water freezing on oars Length of scarlet cloth on tree branch near old hunting camp	High Plains climate	Presence of European goods among Plains Indians

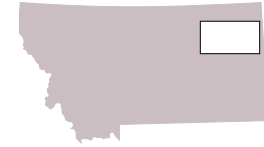
APPENDIX IV **THEME LOCATIONS**



MISSOURI COUNTRY I — POTENTIAL

AREA	DATE & CAMPSITE	JOURNAL OBSERVATIONS	NATURAL HISTORY	HUMAN HISTORY
C	May 3, 1805 Redwater Creek	Poplar River: Named Porcupine River for unusual number of porcupines at mouth Noted traces of ancient river channels Cylindrical structure of bushes, tied together and standing on end	Porcupine life history Effect of glacial advances & retreats on course of Missouri; Clark's map of old river beds	Use of porcupine quills in tribal artwork; methods of capture Structures of Plains Indian
	May 4, 1805 Camp in Roosevelt County	Passed two hunting lodges fortified with driftwood and fallen timber; detailed description of construction		War lodges of the Plains Indians as described to John Ewers by Blackfoot elder; compare to Lewis's description
	May 5, 1805 Vicinity of Wolf Point	Snow geese in large numbers Wolves shadowing bison herds Grizzly downed with 10 musket balls	Migratory route of snow geese Predators of the plains See April 29, 1805	Tribal use of wolf skins to hunt bison
	August 5, 1806 Four miles SW of Wolf Point	Pelican in molt	Pelicans on the Missouri	
	May 6, 1805 Vicinity of Oswego	Little Dry Creek, Lackwater Creek, Big Dry Creek, Little Dry River	Seasonal streams in an arid land	
D	May 7, 1805 Vicinity of Frazer	Bald eagles in great numbers	Birds of prey on the plains	Role of eagles in Plains cultures & capture methods
	May 8, 1805 See Missouri Country II for camp	Named Milk River for color of water Clark thought he saw smoke and Indian lodges up Milk R. Breadroot, or white apple, gathered by Sacajawea	Geology of Milk River: glacial flour Breadroot natural history	Called "River that scolds all others" by Hidatsa; Hidatsa map of area Hunting grounds of Assiniboin tribe Tribal uses of breadroot
	Lewis & Main Party Eastbound August 4, 1806 Vicinity of Frazer	Revisited Milk River: full of water Killed large rattlesnake Willard entangled in sawyers	Prairie rattlesnake life history Navigational hazards on Missouri	Steamboats and sawyers

APPENDIX IV THEME LOCATIONS

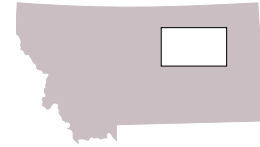


MISSOURI COUNTRY I – EXISTING SITES

	SITE	LEWIS & CLARK	NATURAL HISTORY	HUMAN HISTORY
54	Fort Union	Passed through on the way west Noted gravel base to riverbanks Recognized suitability for trading post		Fort Union
37	Wolf Point	Passed here westbound in 1805	Trappers poisoned several hundred wolves here one winter Buffalo country for the Assiniboines and the Sioux	Steamboats Fur Trade
57	Fort Peck Indian Reservation	Assiniboines living here when Lewis & Clark came up the Missouri		Dakota history Assiniboine history Fort Peck history



APPENDIX IV **THEME LOCATIONS**

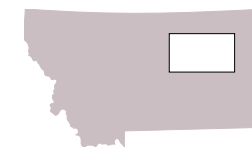


OPPORTUNITIES ON THE LANDSCAPE

MISSOURI COUNTRY II



APPENDIX IV **THEME LOCATIONS**

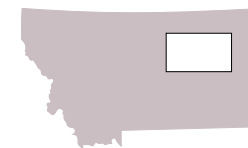


MISSOURI COUNTRY II — POTENTIAL

AREA	DATE & CAMPSITE	JOURNAL OBSERVATIONS	NATURAL HISTORY	HUMAN HISTORY
A	May 8, 1805 Inundated site 1-2 miles above Fort Peck Dam, Valley County	Passed site where someone had taken the hair off an antelope skin		Tribal uses of antelope skins
	May 9, 1805 Inundated site near Duck Creek, Valley County	Killed 4 willets Gentleness of buffalo Recipe for buffalo sausage	Willet: bird new to science Buffalo behavior Menu of Corps of Discovery	Bison recipes of Plains tribes
	May 10, 1805 Inundated site, Garfield or Valley Co.	Crew suffering from boils & sore eyes Lewis noted association between mule deer and hilly country	Possibility of scurvy from meat diet Mule deer habitat	Components of tribal diets that prevented scurvy
	May 11, 1805 Inundated site, Garfield County	Ponderosa pine and dwarf cedar on hillsides; sagebrush increasing "Troublesome fleshy-leafed thorn"	Ponderosa and dwarf cedar life histories Sagebrush life history Greasewood - New to Science	Role of pine & cedar in Plains cultures Role of sagebrush in Plains cultures
B	May 12, 1805 Inundated site, about 7 miles above Seventh Point Coulee, Garfield County	Country growing more rugged & hilly; change in soils Chokecherries in bloom	Missouri's pre-glacial channels Chokecherry life history	Role of chokecherries in Plains cultures
	Lewis & Party Eastbound August 3, 1806 Inundated site near Cattle Creek, Valley County	Magpies, golden eagles, bald eagles, red-headed woodpeckers Hunters killed 25 deer	Bird life on the Missouri (see May 17) Deer habitat in river bottoms	
	May 13, 1805 Inundated site near Crooked Creek, Garfield County	Lack of timber in bottoms Killed deer & elk for skins for clothing	Effects of rain shadow of Rockies on vegetation as party moved west Expedition uses of deer & elk skins	Tribal uses of deer & elk hides
	May 14-15, 1805 Inundated site near Snow Creek, Valley County	White pirogue upset by wind Grizzly chased 2 hunters into river; cook rendered 8 gallons of oil from its fat	Wind on the High Plains Life history of grizzly & behavior when wounded	Role of grizzlies in Plains cultures
	May 16, 1805 Inundated site in Phillips or Garfield County	"Panther" seen concealing portion of dead deer	Cougars on the High Plains	Role of cougars in Plains cultures

✓ See page 335 for how this could be developed into a storyline, which could then be reduced to sign text.

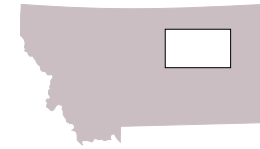
APPENDIX IV **THEME LOCATIONS**



MISSOURI COUNTRY II — POTENTIAL

AREA	DATE & CAMPSITE	JOURNAL OBSERVATIONS	NATURAL HISTORY	HUMAN HISTORY
C	May 17, 1805 Inundated site near Seven Blackfoot Creek, Phillips or Garfield County	Men pulling boats with towlines Passed former camp of Hidatsa warriors "Rattlesnake of yellowish brown color" Mockingbird, poorwill, blackbirds	Prairie rattlesnake - new to science Songbirds of the plains	Hidatsa custom of journeying west to war with Blackfeet & other tribes
	May 18, 1805 Inundated site near Devils Creek Recreation Area, Garfield County	First rain since leaving Fort Mandan Few cottonwoods; country more rugged	Climate of the High Plains	
	May 19, 1805 Inundated site near Long Point in Phillips or Garfield County	River becoming crooked, rapid, & full of sawyers	Geology of river course	
	Lewis & Main Party Eastbound August 1-2, 1806 Inundated site near Horseshoe Point, Petroleum or Phillips County	Passed Musselshell River Landed early to dry bighorn skins Elk separated between males & females Camped in empty Indian lodges	Annual life cycles of elk	Expedition's collection of skins & specimens Tribal uses of area near Musselshell
	May 20, 1805 Inundated site near mouth of the Musselshell River, Garfield or Petroleum County	Explored about 8 miles up Musselshell; Named tributary after Sacajawea Immense numbers of prickly pear	Prickly pear life history	Hidatsa knowledge of Musselshell & geography of upper Missouri
D	May 21, 1805 Inundated site about 10 miles below Beauchamp Creek, Phillips County	Violent dust storm Black & yellow clay on shore	Geology of local shale and sandstone	
	May 22, 1805 Vicinity of Kannuck Creek, Phillips County	"Pointed tail prairie hens" "White cat fish"	Sharp-tailed grouse life history Channel catfish life history	Role of grouse in Plains cultures
	Lewis & Main Party Eastbound July 31, 1806 About 8 miles below Rock Creek, Phillips or Fergus County	Rain; river rising & very muddy Killed 15 elk, 14 deer, 2 bighorn sheep Covered old Indian lodges with elk skins for shelter from rain	Sources of Missouri's mud	
	May 23, 1805 Vicinity of Rock Creek, Fergus County	Water freezing on oars "Spruce pine" on hills Large number of "Burrowing Squirrels"	Douglas fir life history Prairie dog life history	Role of prairie dogs in Plains cultures
	May 24, 1805 About 3 miles above Hwy 191 crossing, Phillips or Fergus County	Ice in kettles Beaver becoming more scarce	Beaver and timber	

APPENDIX IV THEME LOCATIONS

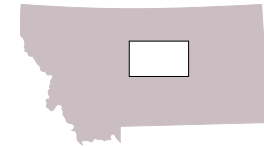


MISSOURI COUNTRY II – EXISTING SITES

SITE	LEWIS & CLARK	NATURAL HISTORY	HUMAN HISTORY
<div data-bbox="205 516 262 576">55</div> Fort Peck Dam	Description of Milk River Quote about white apple Description of Big Dry River Notation of plover and game Encounter with bear Notation of pine Description of greasewood	Location of Signal Hill Big Dry River Location of pine trees Scientific Discovery: Greasewood (<i>Sarcobatus vermiculatur</i>)	Hidatsa called Milk River "River Which Scolds At Others"

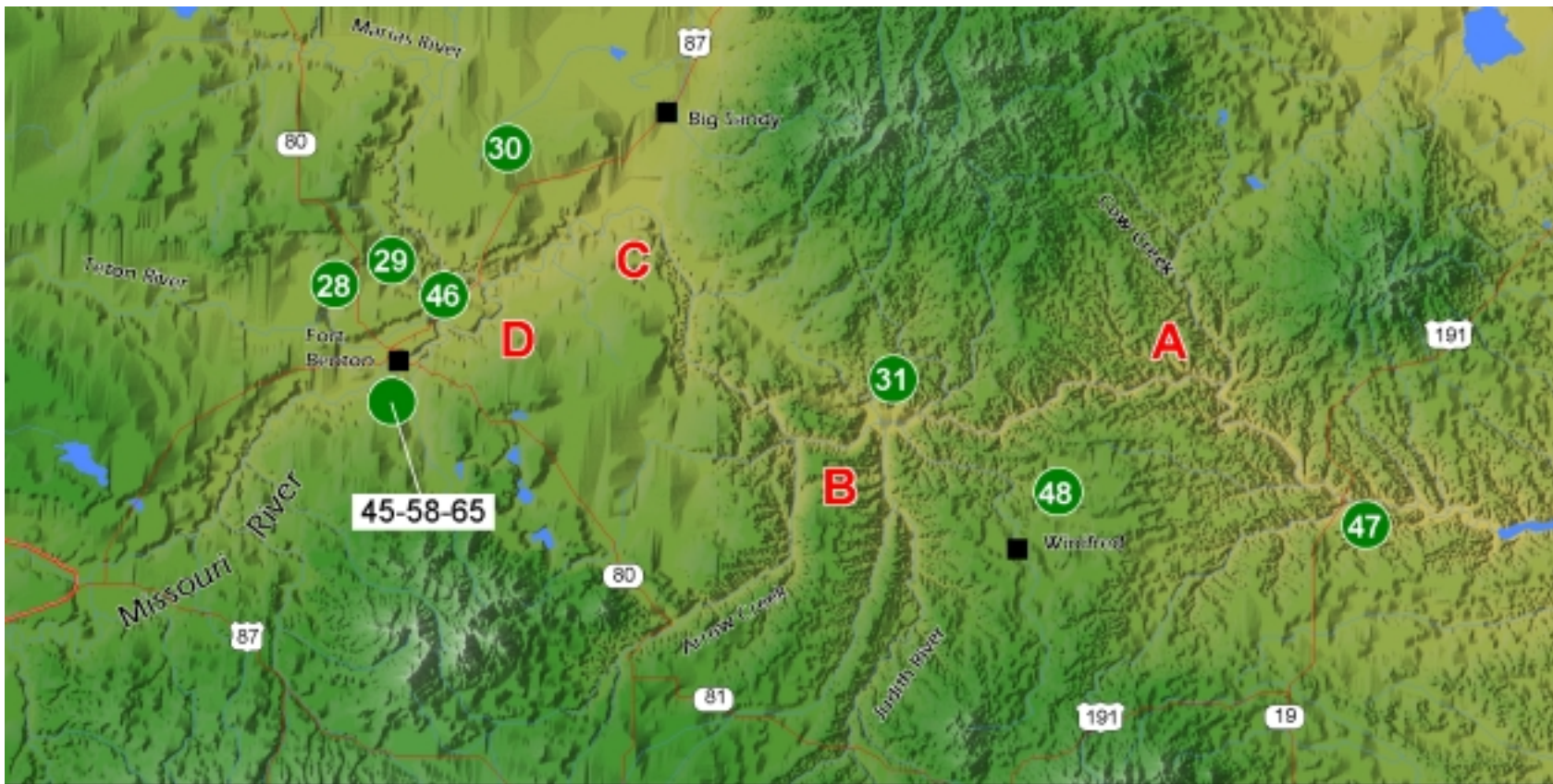


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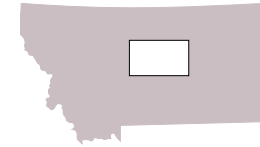


OPPORTUNITIES ON THE LANDSCAPE

RUSSELL COUNTY I



APPENDIX IV THEME LOCATIONS



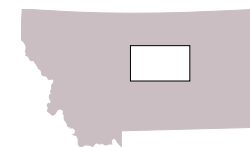
RUSSELL COUNTRY I – POTENTIAL

AREA	DATE & CAMPSITE	JOURNAL OBSERVATIONS	NATURAL HISTORY	HUMAN HISTORY
	Russell Country Regional Topics	Enormous herds of buffalo Abundant elk, deer, & antelope Bighorn sheep seen regularly Grizzlies frequently seen Rattlesnakes frequently seen Empty Indian lodges frequently seen	Bison on the High Plains Grazing animals of the High Plains Bighorn sheep life history Grizzlies on the High Plains Rattlesnake life history	Role of bison in Plains cultures Role of grazing animals in Plains culture Role of bighorn sheep in Plains culture Role of grizzly in Plains culture Role of rattlesnakes in Plains culture Tribal uses of area
A	May 25, 1805 Few miles below Cow Island Recreation Area, Fergus County	High, broken, rocky country Shot first bighorn sheep; drawn by Clark	Geology of Missouri Breaks Bighorn sheep life history	Cow Island crossing used by Nez Perce when fleeing U.S. Army in 1877
	Lewis & Main Party Eastbound July 30, 1806 Few miles below Cow Creek Blaine or Fergus County	Continuous rain Men rowing about 7 miles per hour Killed bighorns & grizzly for specimens		Fate of specimens collected by Expedition
	May 26, 1805 Below Windsor Creek, Fergus County	Mountains in view; Lewis' ruminations "Concreted shell" in bluffs Coal in face of bluffs	Geologic origins of limestone and formation of coal	19th century view of Rockies as single chain of mountains
	May 27, 1805 Vicinity of McNarry Bar Fergus County	Rugged cliffs bordering river Cottonwood becoming more scarce	Missouri Breaks: see May 25, 1805 Effect of rainshadow on vegetation	
B	May 28, 1805 Dog Creek, near Judith Landing Rec. Area, Fergus County	Current much stronger; rocky points Buffalo bull rampaged through camp Found lodge pole & skin "football"		Ball games of Plains Indians; construction of balls
	May 29, 1805 Arrow Creek, Chouteau County	Named Judith River after Clark's future wife Found remains of 126 recent campfires & discarded moccasin thought to be from a tribe north of river by Sacajawea		Tribal use of area Distinctive styles of moccasins and clothing among tribes
	Lewis & Main Party Eastbound July 29, 1806 Near Arrow Creek, Chouteau County	Rained all day Killed elk for skins for rain covers Killed 9 bighorn sheep		
	May 30, 1805 Sheep Shed Coulee, Chouteau County	Passed several old Indian encampments, supposed to be Gros Ventre or Blackfeet		Distribution of tribes on High Plains



✓ See page 341 for how this could be developed into a storyline, which could then be reduced to sign text.

APPENDIX IV **THEME LOCATIONS**



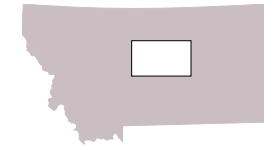
RUSSELL COUNTRY I - POTENTIAL

AREA	DATE & CAMPSITE	JOURNAL OBSERVATIONS	NATURAL HISTORY	HUMAN HISTORY
C	May 31, 1805 Above Eagle Creek, Chouteau County	White Cliffs: "visionary enchantment" "high wall of black rock" Men towing boats in cold water	Geology of White Cliffs Geology of Citadel Rock	Tribal traditions of White Cliffs
	June 1, 1805 Vicinity of Boggs Island, Chouteau County	Country leveling out; cliffs not as high; large banks of pure sand on plains Chokecherry, currant, wild rose	Sand deposits left by previous river channel Importance of riparian habitat for wildlife	Role of wild currants, cherries, & roses in Plains culture
D	June 2-11, 1805 Marias River	Arrived at large northern tributary not shown on Hidatsa's map. Spent several days exploring both rivers before making decision "Cotton willow" River birch "new type of lark" "Mountain cock" Prairie dog town covering 7 miles Men slipping & sliding on gumbo River bottoms filled with nesting birds Violin music, singing & dancing at night Lewis branded several trees	Narrowleaf cottonwood - new to science River birch - new to science McCown's longspur - new to science Sage grouse - new to science Prairie dog life history Geology of Gumbo Songbirds of the High Plains	Explanation of why Marias was not mentioned by Hidatsas Traditional uses of area Fort McKenzie, erected in 1833 to trade with Blackfeet Music of the Expedition Story of Lewis' branding iron
	Lewis & Party Eastbound July 28, 1806 Marias River	Lewis & 3 men reunited with main party Opened cache & continued downriver		
	June 11, 1805 Main Party: Marias River Lewis: near Fort Benton	Lewis set off ahead of rest of party to search for falls mentioned by Hidatsas Clark caching red pirogue & supplies Lewis violently ill with intestinal pain	Lewis prepared chokecherry tea as herbal remedy	Traditional tribal uses of chokecherry
	Ordway's Party Eastbound July 27, 1806 Above Bird Coulee	Hurrying downstream in white pirogue & 5 dugout canoes Killed 5 buffalo in a few minutes		
	June 12, 1805 Main party: Just below Fort Benton	Lewis continued scouting upriver Sacajawea ill		Fort Benton: fur trading post and steamboat port



See page 343 for how this could be developed into a storyline, which could then be reduced to sign text.

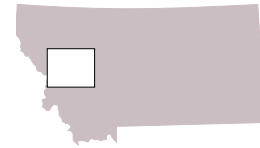
APPENDIX IV **THEME LOCATIONS**



RUSSELL COUNTRY I – EXISTING SITES

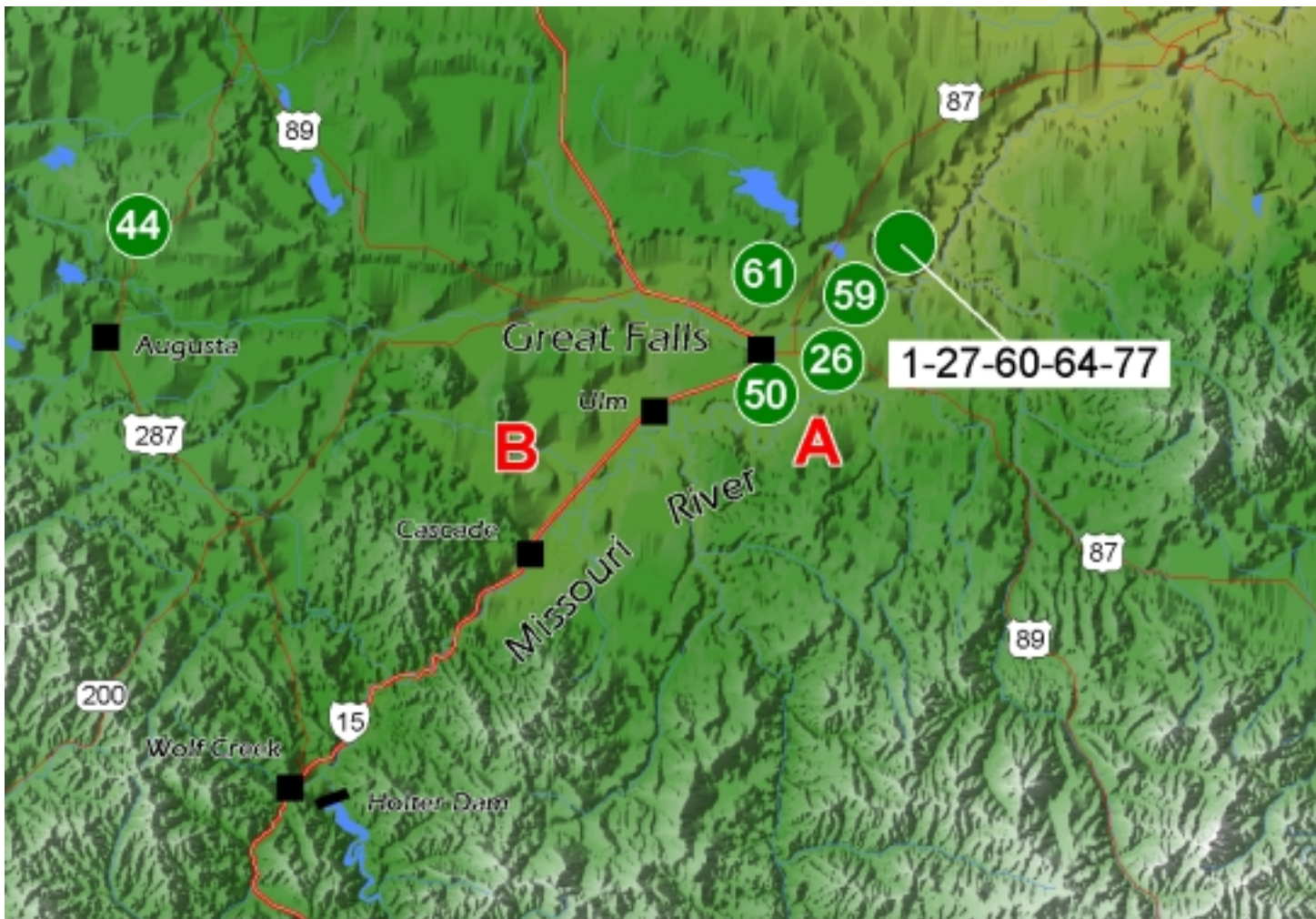
	SITE	LEWIS & CLARK	NATURAL HISTORY	HUMAN HISTORY
28	Fort Benton	Lewis & Clark passed here, 1805		Fort Benton history, steamboats, mining
29	Marias River	Naming and exploration of river		Fort Piegan history Railroad history
30	Montana Crossroads	Lewis & Clark passed here	Formation of the Missouri River Identificatoin of geologic features	
31	Fort Chardon	Lewis & Clark passed here, 1805		History of the area; fur trade, Indians, homesteading
45	Upper Missouri Visitors' Center	Biographies of Lewis & Clark Overview of journey		
46	Decision Point	The dilemna of which river to follow		
47	James Kipp Recreation Area	Lewis & Clark passed here Travel by boat	Natural history of the area	Human history of the area
48	Missouri Breaks	Journal description of countryside	Formation of the land	The First Residents River Navigation
58	Lewis & Clark Monument	Quote about the decision at the Marias		History of the monument
65	Upper Missouri Wild & Scenic River	Lewis & Clark passed here		History of the upper Missouri

APPENDIX IV THEME LOCATIONS

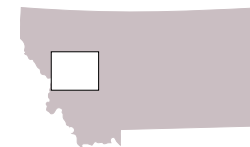


OPPORTUNITIES ON THE LANDSCAPE

RUSSELL COUNTRY II



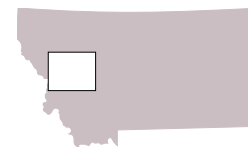
APPENDIX IV **THEME LOCATIONS**



RUSSELL COUNTRY II – POTENTIAL

AREA	DATE & CAMPSITE	JOURNAL OBSERVATIONS	NATURAL HISTORY	HUMAN HISTORY
A	June 13 - 15, 1805 Great Falls	June 13: Lewis reached "the great falls of the Missouri" River appeared to have "worn a channel through a solid rock" "More buffalo than I had ever before witnessed at a view." "Very fine trout" at base of falls Sun River - "Medicine River" to L&C Lewis charged by grizzly Dinner of buffalo hump & trout June 15: Clark & main party arrived	Geology of the Great Falls Bison nursery herds Cutthroat trout - new to science Grizzly behavior	Fate of the High Plains bison herds "Medicine River" from Hidatsa map
	Lewis & Marias Party Eastbound July 16, 1806 Great Falls, north side of river	Lewis sketching falls "Cookkoo or rain crow" Water much lower than previous year	Yellow or black-billed cuckoo life history	
	June 16 - July 13, 1805 The Portage Lower Portage Camp: Near Belt Creek, Chouteau County Upper Portage Camp: Near Sand Coulee Creek, Cascade County	Sacajawea very ill; treated by Lewis Constructed carts to ferry supplies and canoes across 18-mile portage "Sailing on dry land" Feet shredded by prickly pears Clark supervising construction of iron boat brought from St. Louis Men drying meat for portable food Clark charting falls - almost swept away in flash flood along with Sacajawea and Charbonneau Abundance of beaver & otter "Larke with a yellow breast" Many prairie birds nesting "Packrat had done some mischief" "Remarkable small fox" Squirrel of the open plains	Cottonwood as a building material Prickly pear life history Beaver & otter life histories Western Meadowlark: new to science Nesters on the High Plains Bushy-tailed wood rat-new to science Swift fox - new to science Thirteen-lined ground squirrel - new to science	Lewis' medicine chest Cottonwood's importance to L & C Hidatsa portage of 1/2 mile versus Expedition's portage of 18 miles The story of "The Experiment" Tribal methods of preserving food Role of beaver & otter in tribal culture Role of meadowlark in tribal lore Role of foxes in Plains culture

APPENDIX IV **THEME LOCATIONS**

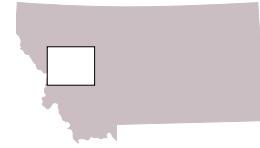


RUSSELL COUNTRY II – POTENTIAL

AREA	DATE & CAMPSITE	JOURNAL OBSERVATIONS	NATURAL HISTORY	HUMAN HISTORY
A	Ordway's Party Eastbound The Portage Revisited July 19 - 26, 1806	Ordway arrived at Upper Portage Camp & found Gass & 5 men Built carts for canoes & baggage Repaired white pirogue that was cached at Lower Portage Camp	Building buffalo dung fires to combat mosquitoes & flies	Tribal methods of dealing with mosquitoes and flies
	Lewis & Party Eastbound Upper Portage Camp July 11 - July 15, 1806	Continual roar from bison herds Crossed river in bull-boats Opened cache from previous summer Seven horses stolen McNeal treed by grizzly bear	Buffalo rutting season	Tribal hunting seasons & methods Tribal use of bull-boats Plant specimens damaged in cache Horse thievery on the High Plains
B	July 10 -14, 1805 Canoe Camp Vicinity of Ulm, Cascade County	Clark building two dugout canoes Passenger pigeons near camp "Extraordinary lodge" description	Cottonwood life history Passenger pigeon life history	Role of cottonwood in Plains cultures Medicine lodges of Plains tribes
	Ordway's Party Eastbound July 18, 1806 Just below Smith River, Cascade Co.	Large gangs of buffalo Large numbers of beaver & otter Mosquitoes "very Severe indeed"	Otter life history	Tribal uses of otter
	July 15, 1805 Few miles SW of Ulm Cascade County	Named Smith's River for Secretary of Navy "Fort Mountain" - Square Butte	Geology of Square Butte	Tribal traditions of Square Butte
	Ordway's Party Eastbound July 17, 1806 About 5 miles below Hardy Creek,	High winds swamping canoes Large gangs of bighorn sheep Killed 2 bighorns & 1 deer		
	July 16, 1805 Blackbird Ripple, Cascade County	Lewis pressed ahead to survey river Aspen appear Forty willow shelters on shore River hemmed in by mountains	Aspen life history Geology of volcanic hills	Tribal uses of aspen Shoshone structures and their uses
	July 17, 1805 Near I-5 crossing of Dearborn River	Tall cliffs of dark black rock	Volcanic origin of cliffs along river	

✓ See page 339 for how this could be developed into a storyline, which could then be reduced to sign text.

APPENDIX IV THEME LOCATIONS

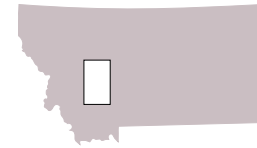


RUSSELL COUNTRY II - EXISTING SITES

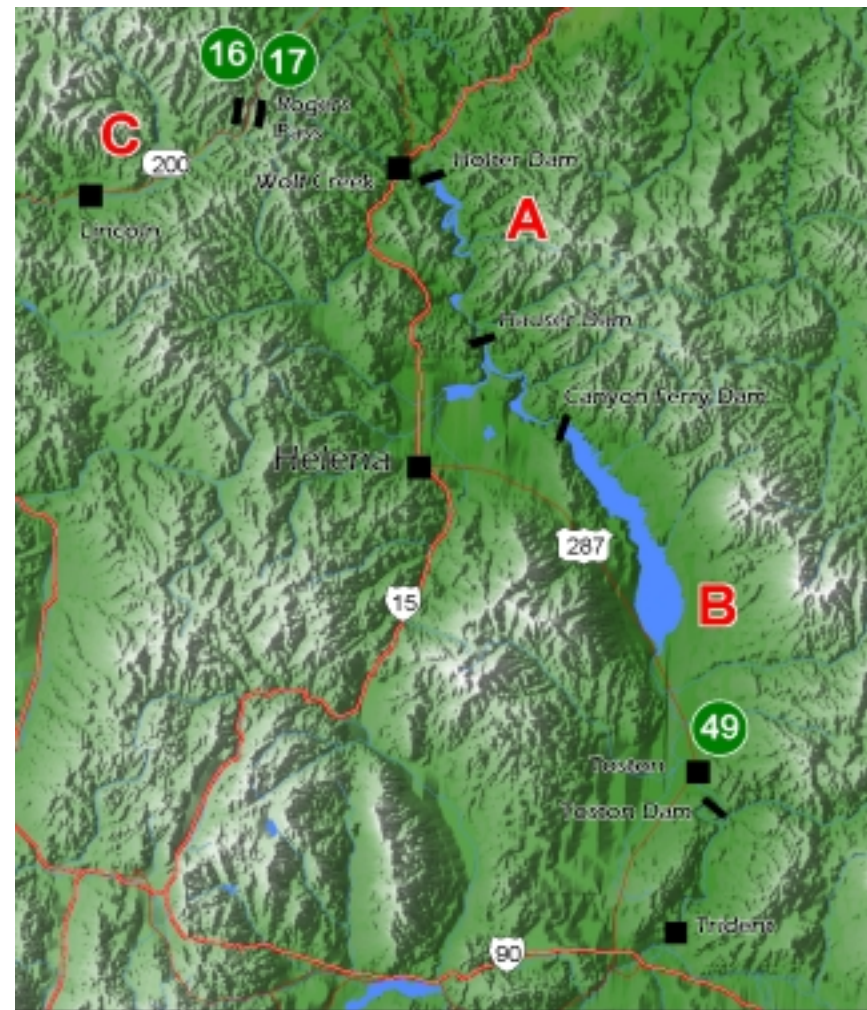
	SITE	LEWIS & CLARK	NATURAL HISTORY	HUMAN HISTORY
1	Lewis & Clark Visitors' Center	Expedition History		Tribal History
26	Lewis & Clark Portage	Route around the falls	Map of the Missouri River	
27	Black Eagle Falls	Journal entries naming place & noting buffalo herd		
44	Sun River	Mention of Lewis' route east		Irrigation for agriculture
50	Giant Springs	Portage around the falls History of the Expedition		
59	Ryan Dam	Lewis & Clark passed here Discovery of Great Falls		
60A	Rainbow Dam	"Sailing on dry land" "Decision at the Marias"		Generating electricity
60B	Lewis & Clark Overlook	Description of Rainbow Falls Encounters with animals		
61	West Bank Park	Encounter with grizzly bear		
64	Sacajawea Island	Sacajawea as part of the expedition		Story of Sacajawea
77	Broadwater Overlook	Expedition history Portage Expedition members		

APPENDIX IV THEME LOCATIONS

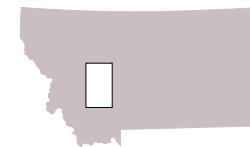
OPPORTUNITIES ON THE LANDSCAPE



GOLD WEST COUNTRY I



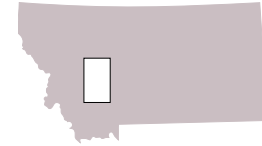
APPENDIX IV **THEME LOCATIONS**



GOLD WEST COUNTRY I—POTENTIAL

AREA	DATE & CAMPSITE	JOURNAL OBSERVATIONS	NATURAL HISTORY	HUMAN HISTORY
	Gold West Country Regional Themes	Lewis & Clark anxious to find Shoshone Indians Native trails & camps throughout valley Bighorn sheep commonly seen on cliffs Abundance of beaver & otter Prickley pear major annoyance	Bighorn sheep life history Beaver & otter life histories Prickly pear life history	Advance knowledge from Hidatsas about Shoshone Indians Importance of horses for portage across Rockies Tribal use of area
A	July 18, 1805 Above Holter Dam, Lewis & Clark County	Named Dearborn River for Secretary of War Clark scouting upriver Followed Indian trail overland		Hidatsa information about shortcut up Dearborn River Native trails through area
	July 19, 1805 Vicinity of Holter Lake Lewis & Clark County	"Gates of the Rocky Mountains" Remains of willow brush lodges Bark peeled from pine trees	Geology of Gates of the Mountains Willow life history Nutrients in pine bark	Tribal legends of the Gates Architecture of Shoshone Indians Custom of eating bark & sap in spring
	Ordway's Party Eastbound July 16, 1806 Little Prickly Pear Creek, Lewis & Clark County	Large gangs of elk & "mountain sheep" Strong headwind forced boats ashore near Gates of the Mountains		Expedition's Specimen Collection: Men saved skin & bones of bighorn sheep "to take to the States"
	July 20, 1805 Between Soup & Trout Creeks, Lewis & Clark Co.	Smoke in distance, presumed to be signal fires of Shoshone Indians "Black woodpecker as black as a crow"	Lewis' woodpecker - new to science	Tribal signal fires
	July 21, 1805 Few miles above Canyon Ferry Dam Lewis & Clark County	Boats making slow progress against strong current with tow rope & poles "Sandhill crains"	Sandhill crane life history	
B	July 22, 1805 Few miles upstream from Beaver Creek, Broadwater Co.	"White Earth Creek" - Beaver Creek "Mountain plover" Sacajawea recognizing landmarks	Upland sandpiper life history	Tribal source of white paint
	July 23, 1805 South end of Canyon Ferry Lake, Broadwater County	"black snake as black as jet"	Western hog-nosed snake - new to science	

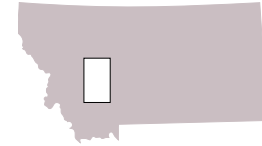
APPENDIX IV **THEME LOCATIONS**



GOLD WEST COUNTRY I — POTENTIAL

AREA	DATE & CAMPSITE	JOURNAL OBSERVATIONS	NATURAL HISTORY	HUMAN HISTORY
B	July 24, 1805 Dry Creek, Broadwater County	Bluffs beside river "like the hills had fallen down & turned side upwards"	Geology of Lombard thrust fault	
	July 25, 1805 Above Toston Dam, Broadwater County	Antelope collecting in small herds "Little Gates of the Mountains"	Antelope life history Geology of canyon	
	July 26, 1805 Eagle Rock, Gallatin County	Grass seeds "armed with a long twisted hard beard" Found Indian bow made of cedar	Needle and thread grass	Bow construction; different woods
	Ordway's Party Eastbound July 13 - 15, 1806 Three Forks to Holter lake	Proceeding downriver in canoes from Three Forks Eating deer, beaver, & antelope		
LEWIS'S PARTY EASTBOUND				
C	Lewis's Party Eastbound July 5, 1806 Near mouth of Monture Creek Powell County	Lewis & 9 men on horseback up native trail along Blackfoot River "quantity of quawmash" Named Monture Creek "Seaman's Creek" for Lewis's dog	Camas life history	"Road to the Buffalo" Tribal uses of camas
	Lewis's Party Eastbound July 6, 1806 Beaver Creek, Lewis & Clark County	Fresh trail of Indians & horses "small blue flag" "prairie of the knobs"	Western blue flag iris life history Geology of Nevada Valley	
	Lewis's Party Eastbound July 7, 1806 About 3 miles East of Table Mountain Lewis & Clark County	Many beaver dams Wounded a "moos deer" Crossed Lewis & Clark Pass "Fort Mountain" visible from pass	Beaver life history Moose life history Geology of Square Butte	Tribal uses of beaver Tribal uses of moose Official border of Louisiana Purchase Tribal traditions of Square Butte
	Lewis's Party Eastbound July 8, 1806 An island in Sun River	"Shishequaw mountain" in sight Passed Dearborn River Elk Creek to Sun River	Geology of Haystack Butte	Tribal traditions of Haystack Butte

APPENDIX IV THEME LOCATIONS

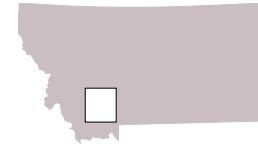


GOLD WEST COUNTRY I – EXISTING SITES

	SITE	LEWIS & CLARK	NATURAL HISTORY	HUMAN HISTORY
16	Travois Ruts			Indian Travel Route
17	Lewis & Clark Pass	Lewis' eastward party once more sees the Plains	Continental Divide	
49	Toston Dam	Lewis & Clark passed here Identification of needle-and-thread grass	"Little Gates of the Mountains"	

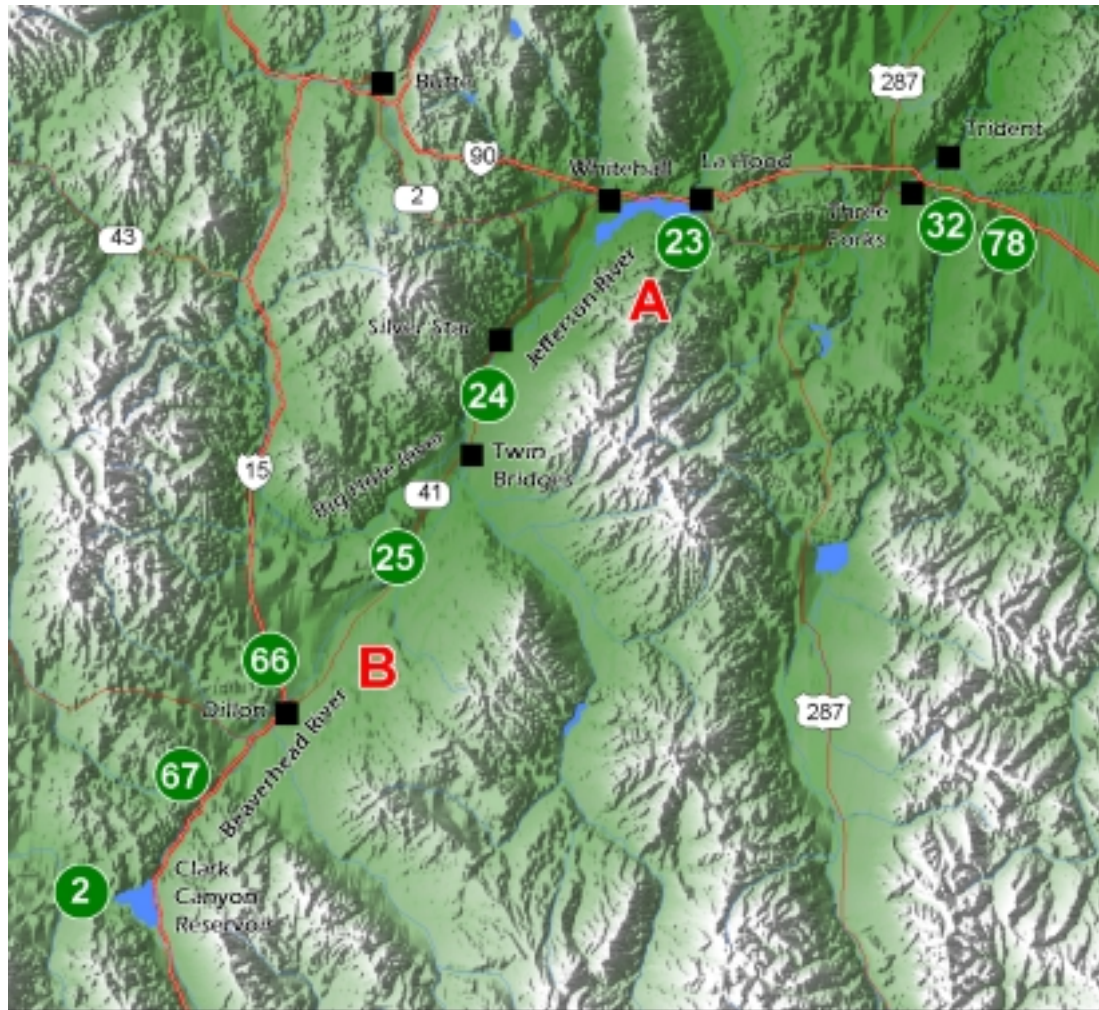


APPENDIX IV THEME LOCATIONS

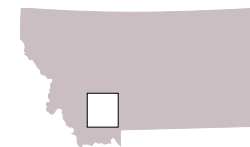


OPPORTUNITIES ON THE LANDSCAPE

GOLD WEST COUNTRY II



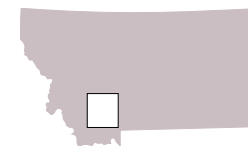
APPENDIX IV **THEME LOCATIONS**



GOLD WEST COUNTRY II – POTENTIAL

AREA	DATE & CAMPSITE	JOURNAL OBSERVATIONS	NATURAL HISTORY	HUMAN HISTORY
A	July 30, 1805 Near Willow Creek, Jefferson County	Captains decided Jefferson River was the correct branch to follow Current strong & river crooked		
	Clark & Party Eastbound July 12, 1806 Near Hwy 287 crossing of the Jefferson	Strong wind made steering difficult Old buffalo sign	Historic range of bison	
	July 31, 1805 Near Antelope Creek & Lewis & Clark Caverns State Park	Hunters unsuccessful: no fresh meat	Scarcity of game above forks	
	August 1, 1805 Main Party: Mouth of Boulder River, near Cardwell, Madison County	Lewis & 3 men in search of Shoshones "dark brown pheasants" "jay bird" Tremendous cliffs for 9 miles	Blue grouse - new to science Pinyon jay - new to science Geology of Jefferson River Canyon	Seasonal rounds of the Shoshone Indians
	August 2, 1805 Big Pipestone Creek, Madison County	Clark's 35th birthday Lewis traveling overland Feasted on wild fruit	Wild fruits of the Jefferson Valley	Tribal uses of wild fruit
	August 3, 1805 Vicinity of Waterloo Jefferson or Madison County	Clark followed fresh tracks of Indian scout who had been watching camp Fish with "remarkable long mouth" Killed "panther" "Terf" in river bottoms	Northern sucker life history Mountain lion life history Formation of peat	Shoshone deployment of scouts
	August 4, 1805 Vicinity of Silver Star, Madison County	Men dragging canoes up shallow shoals Lewis reached fork in Jefferson; wrote note to Clark on willow pole	Changes in river dynamics on approach to mountains	
	August 5, 1805 Short distance up Big Hole River, Madison County	Lewis exploring Big Hole River Crossed large Indian road leading up the Beaverhead; no fresh tracks Willow pole holding note eaten by beaver; Clark turned up wrong fork		

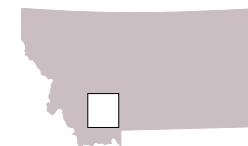
APPENDIX IV **THEME LOCATIONS**



GOLD WEST COUNTRY II – POTENTIAL

AREA	DATE & CAMPSITE	JOURNAL OBSERVATIONS	NATURAL HISTORY	HUMAN HISTORY
B	August 6 - 7, 1805 Jefferson River, opposite mouth of Big Hole River, Madison County	Clark, up Big Hole River, met Drouillard & learned he had taken wrong fork. Immense numbers of flies & mosquitoes	Wet meadows - homes to insects	
	Clark & Party Eastbound July 11, 1806 Same camp as August 6, 1805	Found bayonet left the previous Aug. Found canoe cached in thicket of brush Geese, sandhill cranes, osprey	Waterfowl of Jefferson Valley	
	August 8, 1805 Beaverhead River, few miles above mouth of Ruby River, Madison County	Named Ruby River "Philantrophy River" Turned up Beaverhead River Sacajawea recognized Beaverhead Rock	Geology of Beaverhead River Geology of Beaverhead Rock	Native legends of Beaverhead Rock
	August 9, 1805 Crossing of Hwy 41 over Beaverhead, Madison County	Canoes progressing very slowly Lewis departed overland to find Shoshone Indians		Sacajawea's assurance that the summer retreat of her nation was near
	August 10, 1805 Main camp: Above Beaverhead Rock Madison or Beaverhead County	Rattlesnake Cliffs Scarcity of timber; willow brush only fuel Lewis following Indian trail over hills	Geology of Rattlesnake Cliffs & suitability as snake habitat	Role of rattlesnake in Shoshone culture
	Clark & Party Eastbound July 10, 1806 Jefferson River, opposite Three Thousand Mile Island, Beaverhead Co.	Refurbished canoes departed downstream, paralleled by horses Passed 6 campsites from previous Aug. Deer, antelope, beaver, otter, bighorns	Fauna of Beaverhead Valley	
	August 11, 1805 Between Beaverhead Rock & Dillon, Beaverhead County	Men dragging canoes over shoals		
	August 12, 1805 Near Blacktail Deer Creek, N of Dillon Beaverhead County	Men in water all day; ready to abandon boats & travel by land		
	August 13, 1805 Few miles SW of Dillon, Beaverhead County	Clark still struggling upriver with canoes "High Point of Limestone rocks"	Geology of Clark's Lookout	

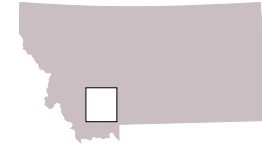
APPENDIX IV **THEME LOCATIONS**



GOLD WEST COUNTRY II – POTENTIAL

AREA	DATE & CAMPSITE	JOURNAL OBSERVATIONS	NATURAL HISTORY	HUMAN HISTORY
B	August 14, 1805 Ten miles SW of Dillon, near Barretts siding, Beaverhead County	Clark & canoes plodding slowly upriver Several men lame		
	August 15, 1805 Below Gallagher's Creek, Beaverhead County	River narrow, rapid, & crooked Many rattlesnakes "Not one tree on either side today"		
	August 16, 1805 Four miles below forks of Beaverhead Beaverhead County	Clark & men dragging canoes upstream Lewis led Shoshones to forks of Beaverhead		
	August 17 - 23, 1805 Camp Fortunate Inundated site just below forks of the Beaverhead, Beaverhead County	Clark & party arrived at Lewis's camp Reunion of Sacajawea & her brother Charbonneau & Sacajawea interpreting L & C presenting gifts & medals Ceremony of council & smoking Bartering for horses; Shoshones estimated to have 700 horses & mules Ornaments of seashells, beads, & brass Knives, kettles, & iron arrow points Shoshone clothing, esp. tippet Utensils of stone, wood, & bone Weapons of stone & bone; few guns Caught "white species of trout" "Sweet-smelling grass" Sank canoes in river to preserve them	 Clothing, utensils, and weapons as reflection of area's flora & fauna Steelhead trout life history Sweetgrass life history	Saga of Sacajawea Sequence of interpretation Shoshone account of mirrors Council & smoking etiquette Exchange rate of horses Trade network for horses & mules Trade networks for shells & for European goods Description of otter & ermine skin tippet Elk horn axes, bighorn spoons, pots Buffalo hide shield, antelope armor, etc. Tribal uses of sweetgrass
	Clark & Party Eastbound July 8 - 9, 1806 Camp Fortunate	Proceeding overland on horseback Clark noted that trail from Travellers Rest would make good wagon road Raised canoes sunk previous August Sacajawea dug "root like Carrot"	 Lomatium sp.	Highways 93, 43, 278, and Road 5 now follow the same basic route Tribal uses of lomatium

APPENDIX IV **THEME LOCATIONS**



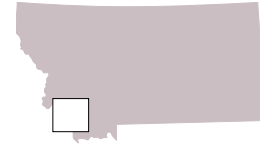
GOLD WEST COUNTRY II – EXISTING SITES

	SITE	LEWIS & CLARK	NATURAL HISTORY	HUMAN HISTORY
78	Sacajawea Monument	Dedicated to role of Sacajawea		
32	Three Forks	Expedition's route through the three rivers area	Headwaters of the Missouri River	Colter's Run Fur trade history
23	Lewis & Clark Campsite	All the animals they shot for dinner		Father Pierre DeSmet
24	Jefferson Valley	Expedition's route along the Jefferson River	Jefferson River watershed	
25	Beaverhead Rock	Mention of journal noting its existence	Landform	
66	Clark's Lookout	No interpretation currently		
67	Rattlesnake Cliffs	Mentions that the Expedition passed a few miles from here		History of Bannack townsite
2A	Camp Fortunate	Expedition's arrival at Shoshone Camp		Sacajawea's meeting with her brother
2B	Sacajawea Memorial	Commemorates role of Sacajawea		

APPENDIX IV **THEME LOCATIONS**

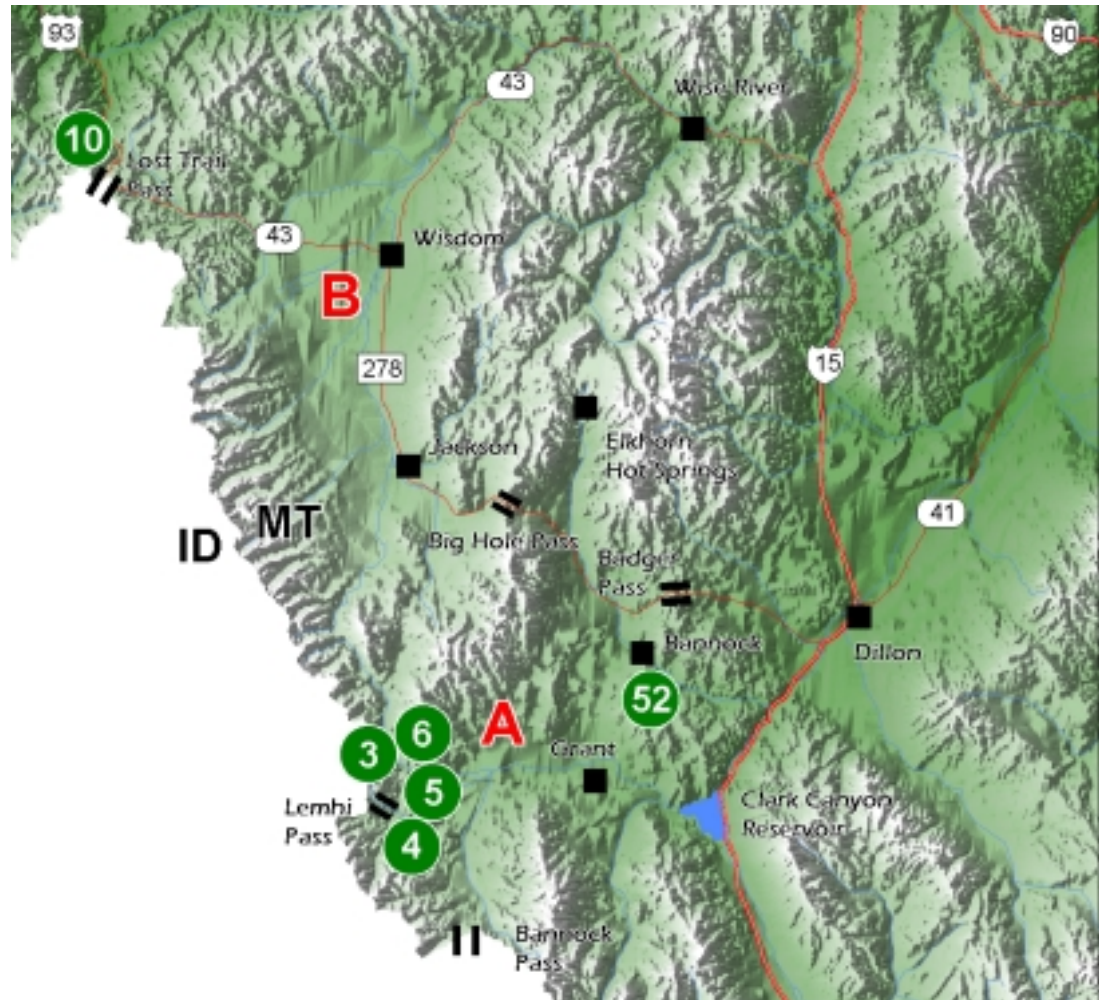


APPENDIX IV THEME LOCATIONS

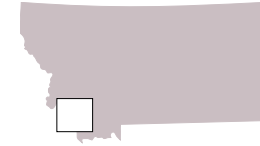


OPPORTUNITIES ON THE LANDSCAPE

GOLD WEST COUNTRY III



APPENDIX IV **THEME LOCATIONS**

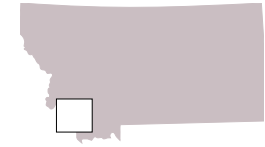


GOLD WEST III — POTENTIAL

AREA	DATE & CAMPSITE	JOURNAL OBSERVATIONS	NATURAL HISTORY	HUMAN HISTORY
A	August 11, 1805 Lewis: Shoshone Cove, Beaverhead County	Lewis, scouting ahead of main party, spotted Indian on horseback & called out greeting, but man rode away		Possible translations of the greeting Lewis was repeating
	August 12-14, 1805 Lewis: Lemhi County, Idaho	Lewis followed "large Indian road" to Lemhi Pass & across Continental Divide to Shoshone encampment		Traditional tribal uses of Lemhi Pass Continental Divide as border of Louisiana Purchase
	August 15, 1805 Lewis: Shoshone Cove	Lewis leading group of skittish Shoshones over pass to meet Clark Shoshones fearful of ambush		History of Shoshone tribe and their retreat from plains to mountains Annual buffalo hunt to plains of Missouri with Flathead bands
	August 24, 1805 Shoshone Cove, few miles east of Grant Beaverhead County	Lewis traded for 9 horses & 1 mule at Camp Fortunate to transport party over Lemhi Pass Horse equipment		Price of horses & mules Buffalo hair bridles; wood & skin saddles
	August 25, 1805 Near fork of Horse Prairie Creek & Trail Creek, Beaverhead County	One deer divided among entire party August 26: Main Party crossed Lemhi Pass with several Shoshones	Scarcity of game in area	
B	Clark & Party Eastbound July 7, 1806 Near the head of Divide Creek, just over Big Hole Pass, Beaverhead County	Crossed Big Hole Valley on horseback "an open boutifull Leavell Vally" Crossed Big Hole River "Boiling Spring" - cooked meat in water Crossed Big Hole Pass to Divide Creek	Geology of Big Hole Valley Geology of Jackson Hot Springs	Tribal use of Hot Springs Tribal use of Big Hole Pass
	Clark & Party Eastbound July 6, 1806 Near Moose Creek, about 7 miles SW Wisdom, western Big Hole Valley Beaverhead County	Clark's party, on horseback, crossed Gibbons Pass, then down Trail Creek Sacajawea recognizing landmarks & route of trail "great quantities of quawmash" in bloom "old buffalo roads & some heads" "great numbers of whistling Squirrel"	Camas life history Mountain bison life history Columbian ground squirrel life history	Flathead trail & old buffalo road: "the Buffalos and the Indians always have the best route, & here both were joined." Flathead & Shoshone uses of camas Effects of horses on mountain bison

✓ See page 345 for how this could be developed into a storyline, which could then be reduced to sign text.

APPENDIX IV THEME LOCATIONS

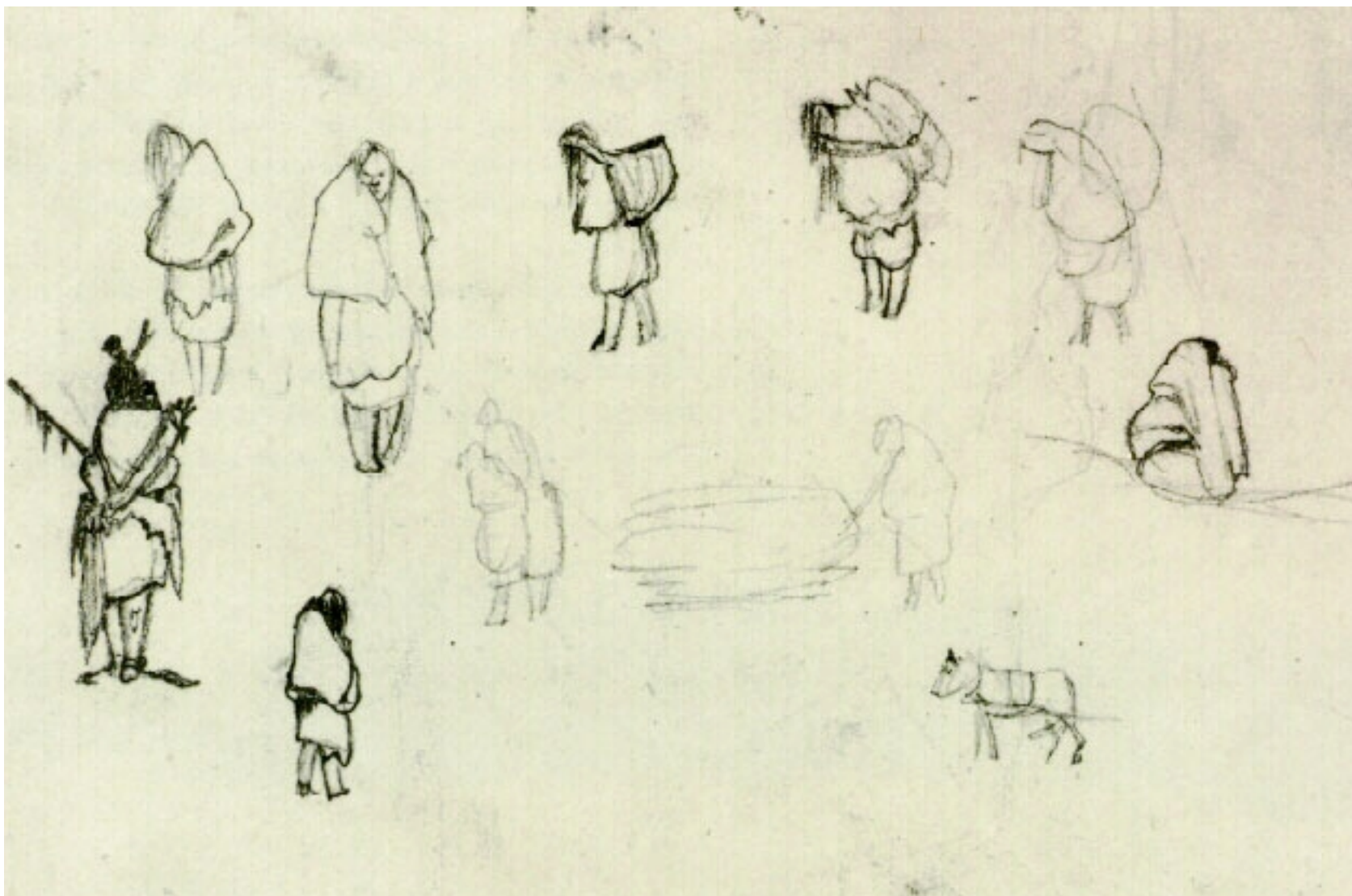


GOLD WEST III — EXISTING SITES

	SITE	LEWIS & CLARK	NATURAL HISTORY	HUMAN HISTORY
52	Bannack	Mentions passing of Clark's party		History of Bannack Passing of Chief Joseph's band in 1877
3	Distant Fountain	Finding of high elevation spring	A source of the Missouri River	
4	Bestride the Missouri	Straddling the Missouri and Columbia Rivers		
5	Lemhi Pass	Notes the crossing of this pass		
6	High Mountain Pass	Notes the crossing of the Continental Divide		
10	Gibbon's Pass	Mentions crossing of expedition		Nez Perce war route

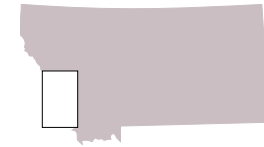


APPENDIX IV **THEME LOCATIONS**

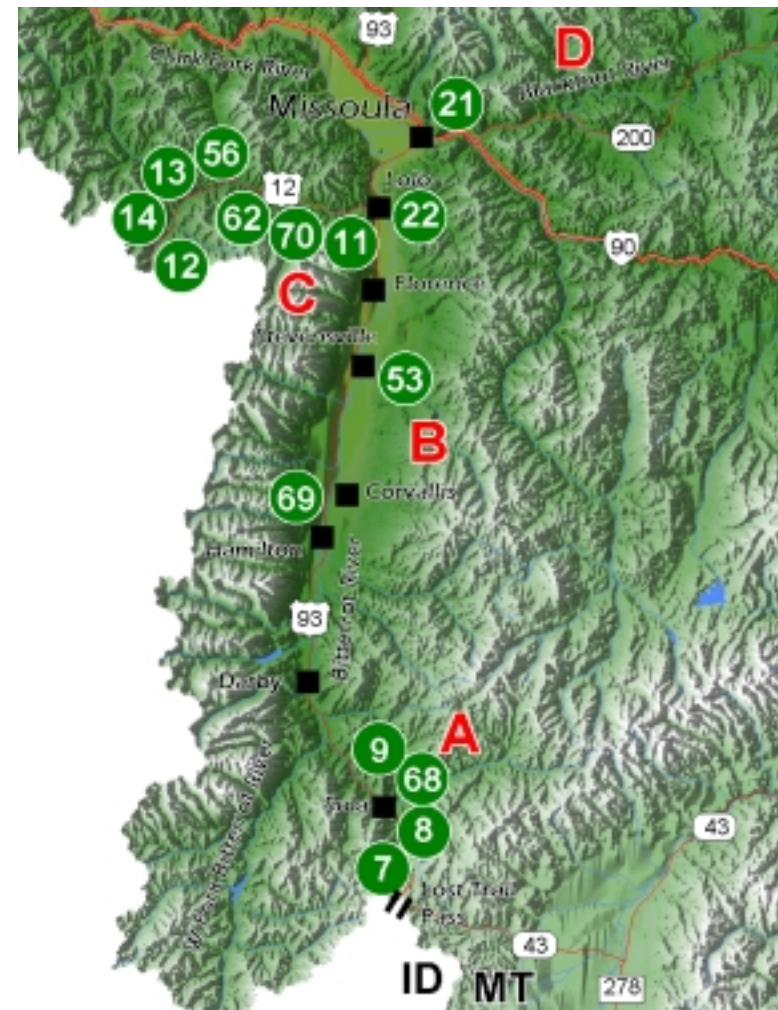


APPENDIX IV THEME LOCATIONS

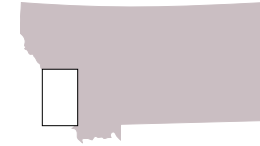
OPPORTUNITIES ON THE LANDSCAPE



GLACIER COUNTRY I



APPENDIX IV THEME LOCATIONS

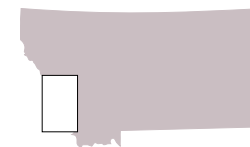


GLACIER COUNTRY I – POTENTIAL

AREA	DATE & CAMPSITE	JOURNAL OBSERVATIONS	NATURAL HISTORY	HUMAN HISTORY
	Glacier Country Regional themes	Men traveling on foot & horseback Mountainous terrain Dependence on native guides Food hard to find	Scarcity of game in mountains	Tribal uses of area Tribal trails through area
A	September 3, 1805 Possibly near head of Shields Creek, Ravalli County; camp uncertain	Crossed Continental Divide near Lost Trail Pass with packhorses "Worst rode that ever horses passed" Last thermometer broken	Formation of Bitterroot Mountains Meteorological records of expedition	Tribal methods of cutting trails
	September 4-5, 1805 Flathead camp, Ross Hole	Party descended Camp Creek valley Flathead camp of 33 lodges: "Those people recved us friendly" Offered berries & roots to eat Gifts of badger, otter, & goat skins Smoked until late at night Assembled chief & warriors for speech Took vocabulary of Salish language Purchased 11 horses & exchanged 7 Flatheads departing for Three Forks	Edible plants of Bitterroot Valley	Flathead oral tradition of meeting L & C Flathead uses of edible plants Tobacco & smoking rituals Chain of languages in interpretation Jefferson's interest in Indian languages History of Flathead horse acquisition Traditional Flathead buffalo hunts
	Clark & Party Eastbound July 5, 1806 Ross Hole, Ravalli County	Crossed Indian road from previous fall Baggage wetted crossing creeks Looking for shortcut the Flatheads had explained previous fall		
	September 6, 1805 East Fork Bitterroot River, few miles NW of Sula, Ravalli County	Corps proceeding down Bitterroot Valley on horseback Berries, corn, & 2 pheasants to eat		
	Clark & Party Eastbound July 4, 1806 Near mouth of West Fork Bitterroot River, Ravalli County	Horses almost swept away fording creeks Celebrated by halting early for dinner of venison & root mush Herd of bighorn sheep	Bighorn sheep in Bitterroot Valley	Role of bighorns among local tribes

✓ See page 250 for how this could be developed into a storyline, which could then be reduced to sign text.

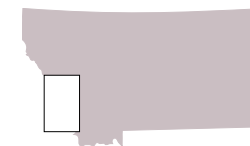
APPENDIX IV **THEME LOCATIONS**



GLACIER COUNTRY I – POTENTIAL

AREA	DATE & CAMPSITE	JOURNAL OBSERVATIONS	NATURAL HISTORY	HUMAN HISTORY
B	September 7, 1805 Bitterroot River, SW of Grantsdale, Ravalli County	Proceeding downriver Killed 1 elk		
	Clark & Party Eastbound July 3, 1806 Blodgett Creek, Ravalli County	Clark with 19 men plus Charbonneau, Sacajawea, and Pomp travelling on horseback up Bitterroot Valley "great variety of sweet cented plants"	Flora of Bitterroot Valley	
	September 8, 1805 Near Stevensville, Ravalli County	"Snow mountains approach river on the left. Snow on mountain to the right" "peculiar sort of Prickly pear"	Geology of Bitterroot & Sapphire Mountains Brittle prickly pear life history	
	September 9-10, 1805 Travelers Rest Lolo Creek, near Lolo, Missoula County	Proceeding down Bitterroot Valley Deer only large game to be found Pine, spruce, & fir Honeysuckle near watercourses No "sammon" in river Colter met 3 Indians in pursuit of horse thieves Lewis taking celestial observations	Fauna of Bitterroot Valley Flora of Bitterroot Valley Western trumpet - new to science Obstacles to salmon	Tribal subsistence patterns Practice of horse stealing among mountain & plains tribes Art & science of latitude & longitude
	Eastbound Party June 30 - July 2, 1806 Travelers Rest	Camped for 2 days, hunting, repairing guns Dividing expedition to explore Marias and Yellowstone Rivers Lewis collecting plants Guides running foot races with men Hunters killed 21 deer after long hunger	Plants new to science: Mountain ladies slipper life history Bitterroot life history Woolly clover life history Wormleaf stonecrop life history	Tribal uses of bitterroot
C	September 11, 1805 Lolo Creek, 1/2 mile east of Woodman Creek, Missoula County	Followed Indian road up Lolo Creek Camped in old Indian lodges No game from hunters	Scarcity of game in mountains	Trail used by Nez Perce traveling east to buffalo country and by Flatheads going west to Columbia fisheries

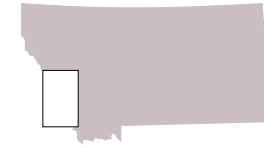
APPENDIX IV **THEME LOCATIONS**



GLACIER COUNTRY I – POTENTIAL

AREA	DATE & CAMPSITE	JOURNAL OBSERVATIONS	NATURAL HISTORY	HUMAN HISTORY
C	September 12, 1805 Two miles east of Lolo Hot Springs, Missoula County	White frost in morning Passed an earth-covered sweat house Trail "very bad" - steep & stony Pine, spruce & fir timber Number of peeled pines Hunters killed 1 pheasant	Trees of the Bitterroots See September 11, 1805	Construction & use of sweat houses Tribal uses of trees Tribal custom of eating underbark
	September 13, 1805 Packer Meadows, Idaho	Lolo Hot Springs: "nearly boiling hot" Creek dammed by beaver Crossed Lolo Pass	Geology of Lolo Hot Springs Mountain beaver life history	Tribal uses of Lolo Hot Springs
	Eastbound Party June 29, 1806 Lolo Hot Springs Missoula County	Crossed Lolo Pass eastbound on horseback with 3 Nez Perce guides Men bathing in hot springs Camas, strawberries, sunflowers in bloom	See September 13, 1805 Edible plants of the Bitterroots	Tribes' modifications to create bathing pools
LEWIS'S PARTY EASTBOUND				
D	Lewis & Party Eastbound July 3, 1806 Grant Creek, near junction with Clark Fork, near Missoula, Missoula County	Lewis, 9 men, & 5 native guides set off down Bitterroot Valley on horseback Made rafts to ferry baggage across river Guides pointed out trail to Sun River		Nez Perce deer skin rafts "The road to the buffalo"
	Lewis & Party Eastbound July 4, 1806 Blackfoot River, about 8 miles from its junction with the Clark Fork Missoula County	Lewis bid fond farewell to Nez Perce guides who were returning home Several trails through valley "Entered the mountains through a narrow confined pass" "Buffaloe road river"- Blackfoot River	Geology of Hellgate Canyon	Nez Perce travel routes Native trails of Clark Fork Valley Salish "road to the buffalo"

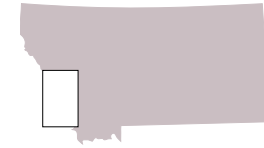
APPENDIX IV **THEME LOCATIONS**



GLACIER COUNTRY I – EXISTING SITES

	SITE	LEWIS & CLARK	NATURAL HISTORY	HUMAN HISTORY
7	Lost Trail Pass	Travel route 1805-1806	Geographic feature: Continental Divide and watersheds	Travel routes over the mountains: Indians, miners, trappers, early settlers, Nez Perce war route
8	Freeway to History	Travel route		Historic travel routes
9	Spring Gulch	Travel route and quote noting food, weather, and water crossing		
68	Ross' Hole			History of Alexander Ross' fur brigade through Bitterroot Valley
69	Trapper's Peak	Travel route 1805-1806	Bitterroot Mountains	Local history
53	Fort Owens	Background history and mission of Expedition		Flathead tribal history Fort Owens history
22	Travelers Rest	Travel route and campsite 1805-1806	Lolo Creek confluence	Salish history
11	Lolo Trail	Travel route 1805-1806	Lolo Creek through the Bitterroots	Trail use through time
12	Anderson Gulch	Travel route 1805-1806	High ridgelines above valley	

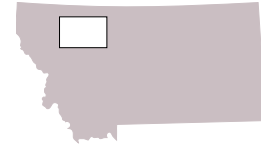
APPENDIX IV **THEME LOCATIONS**



GLACIER COUNTRY I – EXISTING SITES

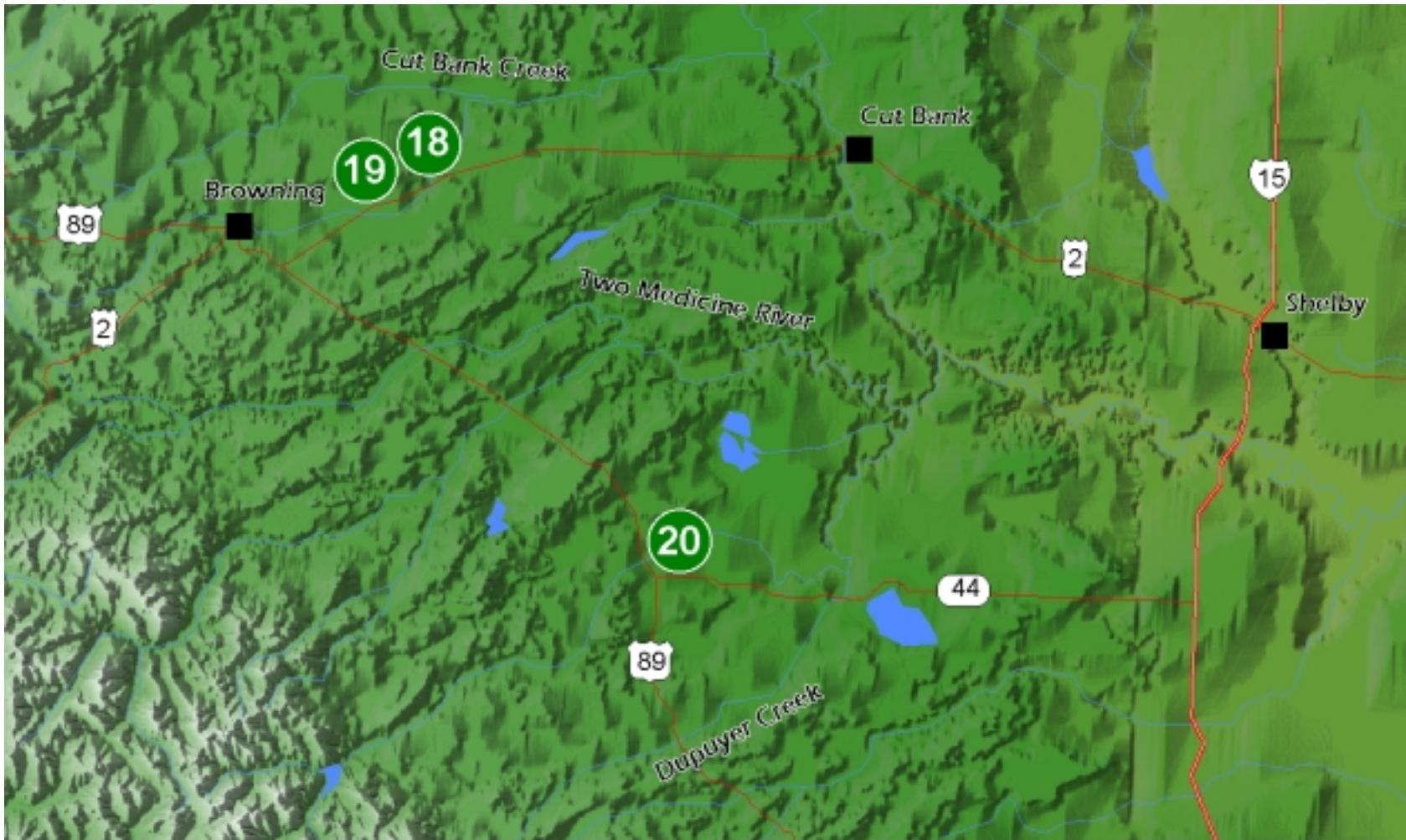
	SITE	LEWIS & CLARK	NATURAL HISTORY	HUMAN HISTORY
70	"Verry bad crossing"	Travel route 1805-1806		
62	Lewis and Clark campground	Expedition diet	Animals on which the Expedition depended	
56	Howard Creek	Travel route 1805-1806 Camped at old Indian lodges		Historic trail use over Lolo Pass
13	Lolo Hot Springs	Travel route 1805-1806 Camp description	Very brief mention of hot springs features	Use of the hot springs through time
14	Lee Creek	Travel route 1805-1806 Packing for the Expedition		
15	Lolo Pass Visitors' Center	History and mission of Expedition Crossing the Bitterroots	Plants and animals of the Bitterroots	Nez Perce Trail Forest Service history
21	Hellgate	Mentions Lewis's route east up the Blackfoot River		Mentions Salish "Road to the Buffalo" Mullan Road Western Lumber Company

APPENDIX IV **THEME LOCATIONS**

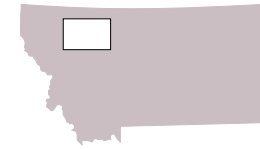


OPPORTUNITIES ON THE LANDSCAPE

GLACIER COUNTRY II



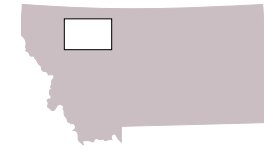
APPENDIX IV **THEME LOCATIONS**



GLACIER COUNTRY II – POTENTIAL

DATE & CAMPSITE	JOURNAL OBSERVATIONS	NATURAL HISTORY	HUMAN HISTORY
<p>July 21, 1806 Lewis & Marias Party Cut Bank Creek, Sw of Cut Bank Glacier County</p>	<p>Lewis & 3 men on horseback exploring the upper reaches of the Marias River Lewis had hopes that its source would be above 50 degrees latitude, thus stretching the territory of the Louisiana purchase. Cut Bank Creek in narrow canyon No firewood; used buffalo dung for fire</p>	<p>Geology of Marias & Cut Bank Creek Ecology of Cut Bank area</p>	<p>Jefferson's desire for maximum territory Terms of Louisiana Purchase Lewis's dislike of British Desire to divert part of fur trade from the Saskatchewan region</p>
<p>July 22 - 25, 1806 Lewis & Marias Party Camp Disappointment Cut Bank Creek, about 12 miles NE of Browning Glacier County</p>	<p>Recently abandoned camps nearby Lewis believed Gros Ventres in area "Whistling squirrels" "Cottonwood common to the Columbia" White rock in horizontal layers No game to be found Eating root mush & passenger pigeons Weather cold & rainy Clouds frustrating attempts to take observations for latitude & longitude</p>	<p>Columbian ground squirrel life history Black cottonwood life history Geology of local sandstones Passenger pigeon life history</p>	<p>Tribal use of area History of Gros Ventres on High Plains Methods of determining latitude & longitude in the field</p>
<p>July 26, 1806 Lewis & Marias Party Two Medicine River below Badger Creek, Pondera County</p>	<p>Lewis gave up on observations & headed for mouth of Marias Passed tribal winter camp Encountered several Piegans & horses: Lewis thought they were Gros Ventres Camped together for the night Smoked & talked in sign language Told Lewis of white man with their band</p>		<p>Wintering on the High Plains Blackfoot tribes of the High Plains Lewis's message of trade & peace Blackfoot trade with British Presence of white traders in the area</p>
<p>July 27, 1806 Lewis & Marias Party Few miles west of Fort Benton Chouteau County</p>	<p>Famous encounter with Blackfeet, leaving 1 man dead & another injured Lewis reclaimed flag, left peace medal Lewis & men took 4 best Indian horses Riding toward the Missouri at top speed</p>		<p>Blackfoot version of encounter</p>

APPENDIX IV **THEME LOCATIONS**



GLACIER COUNTRY II – EXISTING SITES

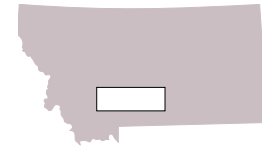
	SITE	LEWIS & CLARK	NATURAL HISTORY	HUMAN HISTORY
18	Camp Disappointment	Lewis's turn-around point On the Marias watershed		
19	Farthest Point West	Commemorates the most NW point of the Expedition		
20	Captain Meriwether Lewis	Lewis's fight with the Blackfeet		

APPENDIX IV

THEME LOCATIONS



APPENDIX IV THEME LOCATIONS

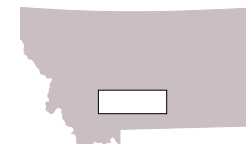


OPPORTUNITIES ON THE LANDSCAPE

YELLOWSTONECOUNTRY



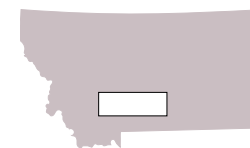
APPENDIX IV **THEME LOCATIONS**



YELLOWSTONE COUNTRY – POTENTIAL

AREA	DATE & CAMPSITE	JOURNAL OBSERVATIONS	NATURAL HISTORY	HUMAN HISTORY
A	Yellowstone Country Regional Topics	Abundant beaver & otter Abundant deer, elk, antelope Enormous herds of buffalo Frequent signs of tribal presence Short grass & riparian trees	Beaver & otter life histories Game animals of the High Plains Bison life history Shortgrass prairie ecosystem	Role of beaver & otter in tribal cultures Role of game in tribal cultures Role of bison in tribal cultures Tribal distribution in area
	July 25, 1805	Clark arrived at Three Forks, scouting ahead of main party Plains recently burned	Geology of Three Forks	Tribal uses of Three Forks area Native fire practices
	July 27 - 29, 1805 Main Party Three Forks: Gallatin River Madison River Jefferson River	Main party reached Three Forks Lewis taking observations for latitude & longitude: "an essential point in the geography of this western part of the Continent" Named branches for Jefferson & his Secretaries of State & Treasury Sacajawea recognized camp as site of her band's attack by Hidatsas Live sandhill crane caught by hunters Lewis scouting site for fort	 Sandhill cranes in central Montana	Methods of determining latitude & longitude in 1805 Three Forks area as hunting ground for several tribes History of fur trade in Three Forks area; story of John Colter and Blackfeet
	Clark's Party Eastbound July 13, 1806 Three Forks	Clark's party split at Three Forks Ordway with 6 canoes & 10 men continued down Missouri Clark with 10 men, Sacajawea & Pomp proceeded overland with 49 horses		
	Clark's Party Eastbound July 13, 1806 Gallatin River, @ 1 mile E of Logan Gallatin County	Clark's party following Gallatin River Sacajawea pointing out landmarks & advising on route Abundant wildlife "Hillsides contain hard white rock"	Fauna of the Gallatin Valley Geology of the Gallatin Valley	Route followed by Flatheads and Bannocks to hunt buffalo

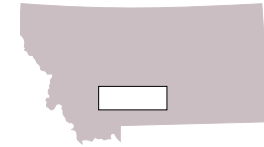
APPENDIX IV **THEME LOCATIONS**



YELLOWSTONE COUNTRY – POTENTIAL

AREA	DATE & CAMPSITE	JOURNAL OBSERVATIONS	NATURAL HISTORY	HUMAN HISTORY
A	Clark's Party Eastbound July 14, 1806 Kelly Creek, 3-4 miles E of Bozeman	Sacajawea steering party toward trail through gap in mountains Many old buffalo trails	Historic range of bison	Sacajawea told Clark that former buffalo were hunted out by Shoshones
	Clark's Party Eastbound July 15, 1806 Yellowstone River, 3 miles below Shields River, Park County	Followed well-beaten buffalo trail over Bozeman Pass in the Bridger Range Followed Billman Creek to the "Roche Jhone" (Yellowstone) River Clark marked name, date, & distance of portage in red paint on cottonwood Shrubs, rushes, rye in river bottoms	Geology of Bridger Range Riparian ecosystem	Tribal uses of Bozeman Pass Historic significance of Bozeman Pass
B	Clark's Party Eastbound July 16, 1806 Yellowstone River, just below mouth of Little Timber Creek, Sweet Grass County	Hunter killed first buffalo since last year Made moccasins of buffalo skin for horses' sore feet Clark searching for trees large enough to build canoes Silkgrass, sunflowers, wild indigo "small fish with mouth like sturgeon" Dark rocks in perpendicular layers	Flora of Yellowstone Valley mountain sucker - new to science Geology of exposed sandstones	
	Clark's Party Eastbound July 17, 1806 Yellowstone River, 1-2 miles below mouth of Hump Creek, Sweet Grass County	Passed Boulder River on south Passed old Indian hut of logs & bark; Sacajawea explained it was defensive fort built by war parties Work Creek Saw "a Single Pelican"	Pelicans on the Yellowstone	Tribal routes through Yellowstone Valley Plains war lodges Site of altercation between Blackfeet & Missouri Fur Co. traders in 1823
	Clark's Party Eastbound July 18, 1806 Yellowstone River Small island about 3 miles West of Columbus, Stillwater County	Riding overland to cut bends in river Gibson fell & pierced thigh on snag Smoke in plains to SE Clark thought it a signal from Crow Ind. Passed Indian "fort" near Berry Creek Great quantities of ripe currants	Wild fruits of the Yellowstone Valley	Tribal uses of fire See July 17, 1806

APPENDIX IV THEME LOCATIONS



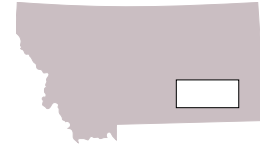
YELLOWSTONE COUNTRY – POTENTIAL

AREA	DATE & CAMPSITE	JOURNAL OBSERVATIONS	NATURAL HISTORY	HUMAN HISTORY
B	Clark's Party Eastbound	Gibson's wound very painful; Clark made a couch of skins & blankets to mount on horse	Wilderness medicine	Tribal name for river
	July 19 -23, 1806	Searching for wild ginger for poultice		Tribes frequenting Yellowstone Valley
	Canoe Camp	Stillwater River named "Rose Bud River" by Clark after tribal name		Crow tribe of the Yellowstone Valley
	Yellowstone River, south of Park City Stillwater County	Passed Indian "fort" below Stillwater Charbonneau saw Indian in distance "Swarms of grasshoppers have destroyed every Sprig of Grass for maney miles" Two grizzlies chased Shields on horse Yellowish bluffs below Stillwater River Found cottonwoods for 2 dugout canoes Men building boats, oars, poles June 21: Half of horses missing June 23: Found moccasin & rope: Clark decided Crow raiders stole horses	Rocky Mountain locust life history Grizzlies in Yellowstone Valley Geology of local sandstones Cottonwood life history	Role of grizzlies in Crow culture Role of cottonwoods in Expedition & in Crow culture Horse thievery among Plains Indians

YELLOWSTONE COUNTRY – EXISTING SITES

	SITE	LEWIS & CLARK	NATURAL HISTORY	HUMAN HISTORY
33	Gallatin Valley	Expedition's passing		Bozeman Trail Fort Ellis
34	Bozeman Pass	Expedition's passing Sacajawea's role in finding the pass		Bozeman Jim Bridger
35	Shield's River	Mentions Clark's passing at mouth of river		Jim Bridger's wagon road
36	Captain William Clark	The construction of dugouts for the trip down the Yellowstone		
51	Missouri Headwaters	Expedition mission and history Sacajawea's capture story	Three rivers landforms Missouri headwaters	Fur trade history Gallatin City Homesteading
63	Itch-ke-pe Park	Expedition's passing	Rosebud River	Indian name for wild rose

APPENDIX IV **THEME LOCATIONS**

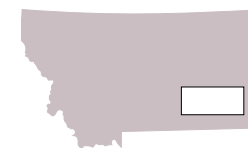


OPPORTUNITIES ON THE LANDSCAPE

CUSTER COUNTRY I



APPENDIX IV **THEME LOCATIONS**

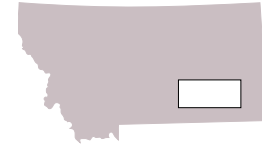


CUSTER COUNTRY I – POTENTIAL

AREA	DATE & CAMPSITE	JOURNAL OBSERVATIONS	NATURAL HISTORY	HUMAN HISTORY
	Custer Country Regional topics	Frequent signs of tribal presence Immense herds of buffalo Large numbers of deer, elk, antelope Large numbers of wolves Abundance of beaver Treeless plains covered with grass Cottonwoods, willows, & shrubs	Bison life history Grazers of the Yellowstone Valley Wolves in the Yellowstone Valley Beaver life history Shortgrass prairie ecosystem Riparian ecosystem	Tribal use of Yellowstone Valley Role of bison in Crow culture Role of game animals in Crow culture Role of wolves in Crow culture Beaver trade on the Yellowstone River Role of cottonwood in Crow culture
A	Clark's Party Eastbound July 24, 1806 Yellowstone River, just below mouth of Dry Creek, Yellowstone County	Lashed 2 dugouts together & set off Pryor departed with 3 men taking horses overland to Mandan villages Passed Clarks Fork of the Yellowstone High black bluffs along river Large "Council lodge" described "Sweet Grass which the Indians plat" "High cliff of yellowish gritty stone"	Geology of local shales Sweetgrass life history Geology of Sacrifice Cliff	Pryor's journey Hidatsa name for Clarks Fork: "The lodge where all dance" Sun Dance ceremony of Crow tribe Role of sweetgrass in Crow culture Tribal traditions of Sacrifice Cliff
	Clark's Party Eastbound July 25, 1806 Yellowstone River, below mouth of Fly Creek, 2 miles NE of Pompey's Pillar Yellowstone County	Buffalo bellowing all night Named "Pompy's Tower" for little Pomp Clark carved name & date in tower "Gang of about 40 Big horn animals" Clark dug large fossil from cliff	Buffalo rutting season (See Region) Geology of Pompey's Pillar Bighorn sheep in Yellowstone Valley Dinosaurs of the Yellowstone Valley	Laroque to Pompey's Pillar in 1805 Tribal traditions of Pompey's Pillar Role of bighorn sheep in Crow culture Jefferson's interest in fossils
B	Clark's Party Eastbound July 26, 1806 ABout 1/2 mile up Big Horn River Treasure County	Big Horn River: Clark explored 7 miles upstream & determined it was navigable for canoes Big Horn water muddy & brown	Geology of Big Horn & local shales	Big Horn River named on Clark's Hidatsa map from Fort Mandan Site of Manuel Lisa's 1807 trading post
	Clark's Party Eastbound July 27, 1806 Yellowstone River, about 2 miles above Big Porcupine Creek, Rosebud County	Clark marked name in red paint on cottonwood on Big Horn "rock resembling a house and chimney" Gangs of elk lying on points of river	Geology of Chimney Bluffs Elk in the Yellowstone Valley	Role of elk in Crow culture
	Clark's Party Eastbound July 28, 1807 Yellowstone River, small island opposite Rosebud Creek, Rosebud County	"glideing down this smooth stream" "saw a wild cat lying on a log" Not out of sight of elk all day "straters of coal in the banks"	Bobcat life history See July 27, 1806 Geology of coal formations	Role of bobcat in Crow culture Coal mining history of eastern Montana

✓ See page 349 for how this could be developed into a storyline, which could then be reduced to sign text.

APPENDIX IV THEME LOCATIONS



CUSTER COUNTRY I – EXISTING SITES

	SITE	LEWIS & CLARK	NATURAL HISTORY	HUMAN HISTORY
38	Pompey's Pillar MDOT	Clark's signature	Landform	7th Calvary campsite
39	Pompey's Pillar	Clark's signature Campsite on downriver trip	Landform Abundance of game Clark viewed from here	Indians had carved many petroglyphs here
40	Junction of Big Hole River	Only notes passing of Clark's party	Watershed landform	Fur trade history Indian wars
41	Rosebud River	Only notes passing of Clark's party	Watershed landform Buffalo herds	Fur trade history



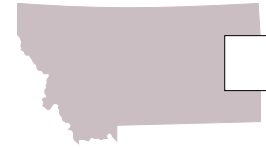
Pompey's Pillar

APPENDIX IV THEME LOCATIONS



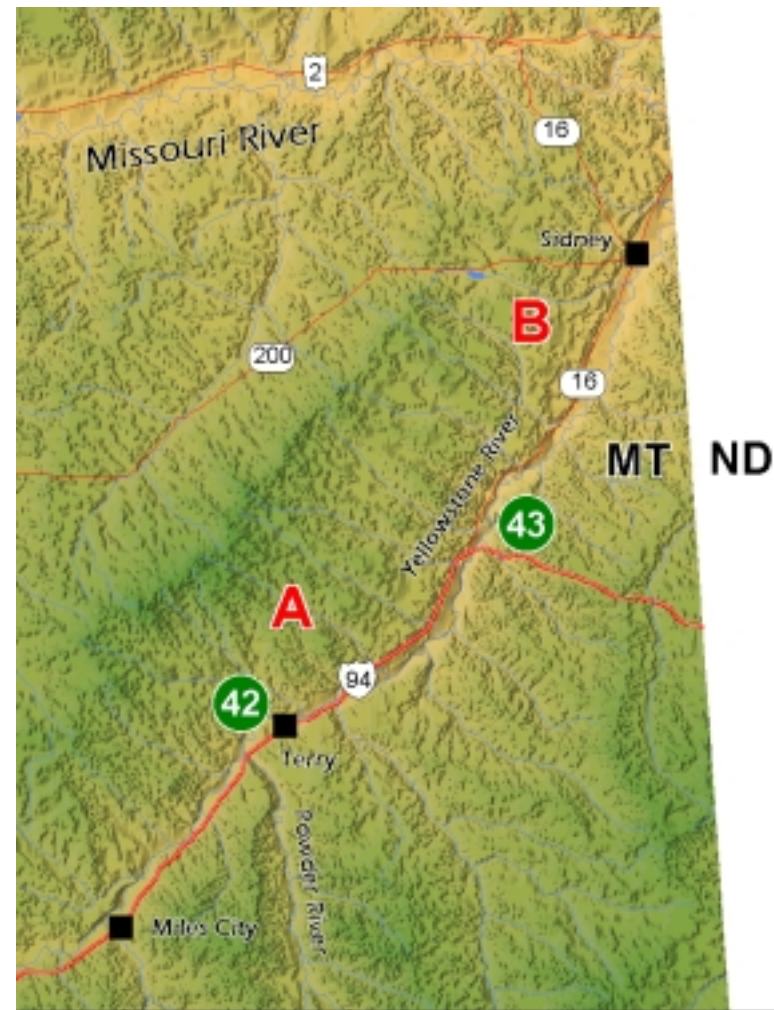
Grave near Powder River

APPENDIX IV THEME LOCATIONS

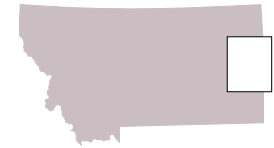


OPPORTUNITIES ON THE LANDSCAPE

CUSTER COUNTRY II



APPENDIX IV THEME LOCATIONS



CUSTER COUNTRY II – POTENTIAL

AREA	DATE & CAMPSITE	JOURNAL OBSERVATIONS	NATURAL HISTORY	HUMAN HISTORY
A	Clark's Party Eastbound July 29, 1806] Yellowstone River, just below & opposite Tongue River, Custer County	"Lazeka or Tongue River" "great quantities of coal in all the hills" "a Soft Shell turtle"	Geology of coal (see July 28, 1806) Western spiny soft shell turtle life history	Hidatsa information on Tongue River Coal mining history (see July 28, 1806)
	Clark's Party Eastbound July 30, 1806 Yellowstone River near Crooked Creek Prairie County	Passed 4 dry creeks, lately flooded Buffalo Shoals: 6-mile series of shoals Powder River: Named Red Stone River "great quantity of red stone" Violent storm: took shelter in old lodge	Seasonal creeks & rivers on the plains Geology of Buffalo Shoals Geology of clinker on Powder River	Tribal uses of clinker
	Clark's Party Eastbound July 31, 1806 Yellowstone River, about 7 miles SW of Glendive, Dawson County	Grizzly feeding on dead buffalo Hills of "various colored earth & coal" "Curious formed mounds & hills"	Grizzlies in the Yellowstone Valley Geology of local sedimentary rocks Geology of erosion of sandstone	Role of grizzlies in Crow culture
B	Clark's Party Eastbound August 1, 1806 Yellowstone River, below Cottonwood Creek, near Wibaux/Dawson Co. line	Rain & wind driven waves "situation is a very disagreeable one" Obligated to land for 1 hour to let herd of buffalo cross river "low pine & cedar" on hills "ash timber in high bottoms"	Summer bison herds Limber pine & Rocky Mtn. juniper Green ash life history	Demise of Yellowstone bison herds
	Clark's Party Eastbound August 2, 1806 Yellowstone River, McKenzie County, North Dakota	Threading way through buffalo crossing river Bighorn sheep in high rugged hills Saw wolves in pursuit of doe elk Chased downriver by swimming grizzly	See August 1, 1806 See July 25, 1806	See August 1, 1806

CUSTER COUNTRY II – EXISTING SITES

	SITE	LEWIS & CLARK	NATURAL HISTORY	HUMAN HISTORY
42	Powder River	Only notes passing of Clark's party		U.S. Army supply depot
43	Glendive	Only notes passing of Clark's party	Abundance of game	Cattle ranching



ACROSS THE HIGH PLAINS

On the morning of April 27, 1805, a small flotilla of boats set off from the junction of the Missouri and the Yellowstone Rivers, headed upstream. Two flat-bottomed pirogues and six dugout canoes carried two U.S. Army captains, three sergeants, twenty-three privates, one Negro slave, two French-Canadian interpreters, one young woman with a three-month old child, and one Newfoundland dog. This was the Corps of Discovery, led by Meriwether Lewis and William Clark, on the way to the Pacific Ocean. During the month of May of 1805, the boats made their way up the Missouri, traveling almost due west. The current of the river was relatively gentle here in its course across the High Plains, and the expedition made steady progress upstream. Even though spring had arrived, nights were still chilly, with water sometimes freezing on the oars in the morning as the men rowed. On May 2, William Clark observed: "A verry extroadernaley Climate, to behold the trees Green & flowers Spred on the plain, & Snow an inch deep."

A Bigger Story

Which concepts and information would you draw from this story to develop sign text ?



Bodmer painting: Junction of the Yellowstone River with the Missouri



Glimpse into the past

What graphics and artwork are most effective in expressing your story?

“THE WIND ROSE”

One of the greatest obstacles faced by the Corps of Discovery on their voyage through the High Plains was the wind. Headwinds sweeping across the open prairies were often so strong that the men had to walk on shore and pull the boats upriver by long tow ropes. At other times, they were able to take advantage of more favorable breezes by hoisting their sails and logging up to twenty-five miles a day. But speed had its hazards, as they discovered on May 14 when a strong gust of wind upset the white pirogue with three non-swimmers, a baby, and a great deal of precious cargo on board.

SHORTGRASS PRAIRIE

“the wind rose and continued to blow verry hard a head, which blew the Sand off the Points in Such clouds as almost Covered us on the opposit bank.” (Clark, April 27)

“the wind rose so high, that our small canoes could not stand the waves.” (Patrick Gass, May 1, 1805)

“Along the Missouri and the waters which flow into it, cotton wood and willows are frequent in the bottoms and islands; but the upland is almost entirely without timber, and consists of large prairies or plains the boundaries of which the eye cannot reach. The grass is generally short on these immense natural pastures, which in the proper seasons are decorated with blossoms and flowers of various colours.” (Patrick Gass, May 27, 1805)

The climate of the northern plains is one of long cold winters and short hot summers, with about ten inches of precipitation a year - enough to support grasses and certain shrubs, but not enough for continuous forest. Trees do grow along streams and rivers, but outside these ribbons of green lies the vast sea of the shortgrass prairie. Along with a wide variety of grasses, the prairies nurture a profusion of forbs that are especially adapted to the rigors of drought, extreme temperatures, wind, and fire. Botanists have counted over two hundred species in one acre of prairie, from quick-blooming annuals to long-lived perennials to small shrubs. Together these plants form an umbrella over the soil, conserving precious mois-

ture and preventing erosion by wind and water. As the foundation of the prairie ecosystem, these diverse plants nourish an array of insects, birds, and mammals throughout the year. Today, only remnants of the grasslands seen by Lewis & Clark remain, for much of the prairie was converted to wheat fields during the homesteading era early in the twentieth century.



**EXPLORING THE
POSSIBILITIES**

As their flotilla advanced up the Missouri, it became the custom of the captains to take turns walking on shore, where they would explore tributaries, help hunt for game, and survey the surrounding countryside. The interpreter Charbonneau and his Shoshone wife often accompanied the captains, with Sacagawea sometimes gathering interesting plants and explaining the ways in which they were used by the tribes. The captains' notes on food plants such as breadroot, currants, lomatium, camas and sunflower seeds offer some of the earliest written accounts of traditional plant foods.

Edible roots and berries formed an important part of the diets of both plains and mountain tribes, and the people maintained a keen awareness of the habitats and life histories of the cornucopia of plants around them. A map of Montana drawn by a Blackfoot Indian in 1801 clearly identifies rivers,

mountains, and berry patches, demonstrating how the seasonal rounds of the nomadic tribes were determined not only by the movements of buffalo herds, but by the ripening times of certain fruits and edible roots. Most of these

NEW TO SCIENCE

The plants and animals described and collected by Lewis and Clark during their sojourn in the future state of Montana included many that were previously unknown to scientists of the time, including:

Plants

Bitterroot
Golden currant
Greasewood
Great-flowered gaillardia
Large monkey flower
Lewis's wild flax
Owl's clover
Narrow-leafed cottonwood
Needle and thread grass
Rocky Mountain maple
Silvery lupine
Sitka mountain ash
Sticky currant
Western blue-flag
Western paper birch

Birds & Animals

Clark's nutcracker
Cutthroat trout
Grizzly bear
Kit fox
Lewis's woodpecker
Mountain goat
Pack rat
Prairie rattlesnake
Sage grouse
Shiras's moose
Western meadowlark
Yellow-bellied marmot



A Bigger Story

Which concepts and information would you draw from this story to develop sign text ?

were harvested within a tight window of time and carefully dried and stored for winter use.

Plants also played an essential role in tribal medicines. Meriwether Lewis, whose mother was a well-known herbalist in Virginia, had a particular interest in medicinal plants. At one point on the journey, overcome by intestinal pains, he treated himself with a strong chokecherry bark tea.

Glimpse into the past

What graphics and artwork are most effective in expressing your story?

COLLECTING THE WEST

Among the instructions that President Thomas Jefferson gave to Lewis and Clark before they left the United States was a directive to describe and collect the animals and the “vegetable productions” of the western regions, particularly any that were unknown in the East. Accordingly, the captains described many new and unusual species, and made room in their baggage for seeds and pressed plants as well as the skins and skeletons of numerous birds and animals such as the grizzly bear, bighorn sheep, and Lewis’s woodpecker. These specimens are now scattered at museums and archives around the country. Many of their carefully preserved plants can still be seen at the Lewis and Clark Herbarium in Philadelphia.



Prairie Turnip

A Bigger Story

Which concepts and information would you draw from this story to develop sign text ?



“A HANDSOME BOTTOM OF SMALL COTTONWOOD TIMBER”

Growing along creeks and streams and in wide river bottoms, the tall crown of the cottonwood tree signals the presence of water on the western prairies. Paul Cutright, a scholar of the Lewis and Clark expedition, wonders how the Corps of Discovery possibly could have made it across the continent without the aid of this tree. Like generations of Native Americans, the expedition found the cottonwood very useful. The dugout canoes they paddled upstream from Fort Mandan to the Rockies and back again were all carved from cottonwoods. The wheels on the carts that hauled their cargo across the portage at the Great Falls were sawn from a single cottonwood tree. Groves of cottonwoods provided welcome shade at noontime and sheltered campsites at night. Cottonwood logs burned in their campfires all across the plains, while living “Cotton trees” provided a slate on which Captain Clark carved his name from time to time.

A POPLAR BOTH NARROW AND BROAD OF LEAF

Named for the cottony down that encases its seeds, the cottonwood is the only tree of any size on the high plains. It survives in this arid land by staying close to watercourses and sending deep roots 30-40 feet beneath the surface in search of moisture, then storing large amounts of water in its soft tissues. Its thick bark insulates against cold, heat, and wind, while its fast growth takes maximum advantage of good weather.

Cottonwoods play an important role in the ecosystem of the plains. Their spreading branches shade lower plants and provide nesting sites for birds from eagles to songbirds. Dead trunks supply homes for woodpeckers, owls, and small mammals. Beavers eat cottonwood bark and use its timber for dams, sometimes felling trees three feet in diameter.

Two species of cottonwoods grow on the Montana prairies: plains cottonwood and narrow-leaved cottonwood, which was first observed by William Clark on June 6, 1805, near the mouth of the Marias River. The narrow-leaved cottonwood is a smaller

tree that ranges partway up into the Rockies, whereas its broad-leaved cousin lives mainly on the plains.

THE COTTON TREE

Cottonwood was an important resource for the native tribes of the northern plains, who devised many applications in addition to its obvious uses for fuel and shelter.



Narrow-leaf Cottonwood



Plains Cottonwood



Glimpse into the past

What graphics and artwork are most effective in expressing your story?

APPENDIX IV

THEME LOCATIONS

Cottonwood bark and twigs provided nutritious food for horses when grass was covered with snow.

The sweet inner bark and sap were relished by the Flatheads and Blackfeet, who peeled the bark in spring when the sap was running.

When preparing for a horse raid, Blackfeet warriors would rub themselves with cottonwood sap to disguise their human scent.

Several tribes obtained a yellow dye from cottonwood buds.

Flatheads chewed cottonwood bark for colds, made poultices from its leaves for bruises and sores, and drank tea made from young branches and buds



A VERY EXTRAORDINARY LODGE

On the morning of July 13, 1805, Meriwether Lewis was walking along the banks of the Missouri south of the great falls when he came upon “a very extraordinary Indian lodge, or at least the fraim of one; it was formed of sixteen large cottonwood poles each about fifty feet long...” The detailed description that Lewis penned of this structure sounds exactly like the Medicine Lodge that many of the Plains tribes constructed for their ritual Sun Dances.

Although the details of the Sun Dance varied from tribe to tribe, cottonwood trees often played an important role. The center pole of the lodge, which was ceremoniously blessed before being cut and hauled to the site, was usually the trunk of a cottonwood with a fork near its top. This pole stood at the center of the lodge with its branches lifted toward the sky, a symbolic link between the earthly and the spiritual worlds.

A Bigger Story

Which concepts and information would you draw from this story to develop sign text ?



TRIBES OF THE NORTHERN PLAINS

From the mouth of the Yellowstone to the headwaters of the Missouri, Lewis and Clark encountered not a single native tribe, but they did find frequent evidence of their presence. Native trails ran beside the river, and the Americans often noted old campsites and hunting lodges. While hunting below the Poplar River, Joseph Fields came upon several yards of scarlet cloth suspended on the

bough of a tree. Lewis speculated that the cloth had been left as a religious offering by the Assiniboinés, a tribe whose hunting grounds lay north of the river. A few days later, Clark thought he saw smoke up the Milk River, and on May 10 a stray dog wandered into camp. Near the mouth of the Judith, the men found a skin “football”, and the next day, May 29, Lewis counted the remains of

126 campfires, near which he found a pair of worn moccasins. Sacajawea examined the moccasins and “informed us that they were not of her nation the Snake Indians, but she believed they were some of the Indians who inhabit the country on this side of the Rocky Mountains and North of the Missouri.”



Indian Camp at Dawn, Jules Tavernier



Glimpse into the past

What graphics and artwork are most effective in expressing your story?

BUFFALO HUNTERS

As the Corps of Discovery traveled the Missouri and the Yellowstone Rivers back and forth across the high plains, they passed through the hunting grounds of several tribes, including the Assiniboines, the Crows, the Blackfeet, and the Gros Ventre. These nomadic bands of hunters harvested a variety of animals, roots, and berries, but bison formed the mainstay of their existence. Depending on the season and the number of animals nearby, the tribes had several methods for downing the enormous beasts.

Hunters on foot would work the edges of a herd, draping themselves with wolf skins to avoid spooking the animals. After the advent of horses, riders would cut choice cows or bulls out of a group. In winter, men hunted on snowshoes, driving the bison into deep snowdrifts. In late summer, when the bulls were at their fattest, bands would gather for a large hunt in which many animals would be taken. In the right terrain, bison were driven over the edge of a cliff, or pishkin. In other places they were surrounded and herded into a canyon or natural corral where waiting hunters finished them off.

FROM HORN TO HOOF

After the buffalo was killed, almost every part of its body found a use:

Brains -	tanning hides	Rawhide -	shields, drums, ropes, bullboats
Hair -	halters and bridles; ornaments; stuffing for balls	Rib bones -	childrens' sleds; gaming pieces
Horns -	ladles, cups, powder horns, ceremonial headdresses	Sinews -	bow strings and sewing thread
Hooves -	tipi door knockers & ceremonial rattles	Skulls -	ritual purposes
Hump ribs -	knives	Stomachs -	water buckets
Paunches -	cooking pot	Tails -	fly swatters & ritual whisks





AN INTERESTING QUESTION

Late on the afternoon of June 2, 1805 the Corps of Discovery came upon “a very considerable river” flowing from the north. This was a puzzling development, for the Hidatsas at Fort Mandan had not mentioned a major fork in the river anywhere near this spot. (The Hidatsa, traveling by land, had taken a route that avoided a northerly bend in the river at this point, thus missing the junction.) Lewis and Clark decided to explore each river upstream for a couple of days before making a decision that could drastically affect the outcome of their expedition.

When they reconvened at their base camp a few days later, the captains employed their “cogitating faculties.” They charted the courses gained from their explorations, and noted that the North Fork had the same muddy color & roiling character as the Missouri. The South Fork was the wider, and its waters ran clear & smooth over a bed of stones. Based on information from the Hidatsas that the Missouri was clear at

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Which concepts and information would you draw from this story to develop sign text ?



Carl Bodmer, Mouth of the Marias

the great falls and that the falls lay south of the sunset, coupled with their own knowledge of British explorations along the Rockies and their deductions that a rocky river bottom indicated a source in mountainous country, they agreed that the South Fork was the Missouri. The majority of the men were equally certain the North Fork was “the true genuine Missouri,” but said that “they were ready to follow us any where we thought proper to direct.”

Lewis named the north fork Maria’s River in honor of a cousin and branded

several trees near the junction. In case their deductions were wrong, the captains decided that Lewis should hurry up the south fork on foot while Clark followed with the boats. Three days later, Lewis was walking across the plains when “my ears were saluted with the agreeable sound of a fall of water and...I saw the spray arise like a column of smoke.” He had reached the great falls of the Missouri.

“An interesting question was now to be determined, which of these rivers was the Missouri.”



What graphics and artwork are most effective in expressing your story?

The feathers about its head
 provided was steep. Some have
 the base of the beak, feathers
 few and deep about the ear.
 This is a faint likeness of the
 of the plumes or feathers
 the first of those from
 was not without
 Myosotis blue
 on the right
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 the first of those from
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 Myosotis blue
 on the right
 of the Rocky
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 which pay
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 as a single
 & young
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The large black & white Oleasant a species
 to that portion of the Rocky Mountains watered by
 the Golden Bear River. at least we had not seen them until
 we reached the valley of that River. now I saw as the
 we reached the valley of that River. now I saw as the

With the arrival of spring, sage grouse gather on their ancestral leks, or courting grounds. There the males puff out their showy chests and spread fans of pointed tail feathers as they produce distinctive booming sounds from inflated air sacs on either side of their neck. In response to these mating calls, the females choose a single harem male, then drift away to build a shallow nest of grasses.

A Bigger Story

Which concepts and information would you draw from this story to develop sign text ?



“A LARGE AND PLAIN INDIAN ROAD”

The first two weeks of August of 1805 were frustrating ones for the Lewis and Clark expedition. The Hidatsas had told them that they would need horses to cross the mountains, and that they would be able to obtain them from the Shoshones near Three Forks. But when they arrived there, the valley was empty.

As the Corps headed up the Jefferson River, its rapid current and winding course slowed their boats to a crawl. Sacajawea assured the captains that the summer retreat of her people was nearby, and Lewis and three men set off on foot to find them.

handful of trinkets and calling out a phrase that he thought meant “I am a white man,” but which might have sounded like either “Look at the sun” or “I am an alien” to a Shoshone ear. At any rate, the man turned his horse and trotted away. This was a disheartening setback for Lewis, but he decided to press on in hopes of finding the man’s camp.

On the morning of August 10, near the upper reaches of the Beaverhead River, he came upon an “Indian road which led towards the point that the river entered the mountain.” The next day, following this trail through the valley now known as Shoshone Cove, the Americans spotted an Indian on horseback. Lewis approached the man slowly, holding a

The next morning Lewis passed a meadow where people had been digging roots. Shortly thereafter “we fell in with a large and plain Indian road” that led through a narrow bottom and up a steep hillside to the top of a dividing ridge “from which I discovered immense ranges of high mountains still to the West.” Lewis had reached Lemhi Pass on the Continental Divide, the traditional mountain crossing for many generations of the Lemhi band of the Shoshones.



APPENDIX IV THEME LOCATIONS

TRADE ROUTES

During several days spent camping with the Shoshones at Camp Fortunate, Lewis noted a number of items that had come from far away from their homeland. Even though these people had never seen a white person before, they had items of European manufacture, illustrating the extensive network of the tribal trading routes that existed long before the arrival of white traders to their lands.

Horses and mules

Beginning in the 1700s, horses and mules from Spanish settlements in the Southwest filtered north through a succession of trading contacts, quickly becoming an essential part of the culture of the Shoshones and their neighboring tribes.

Tobacco

Lewis noted that the Shoshones did not grow their own tobacco, but traded it from the Crow Indians and some of their own bands to the south.

Seashell ornaments

The tribes along the Pacific coast collected higu shells, which they carried upstream on the Columbia to trading centers such as The Dalles.

Guns, beads, kettles, iron arrow points

Items manufactured in England and Europe were shipped to Hudsons Bay and the Great Lakes, where they made their way west along the Saskatchewan drainage and south to the trading centers such as the Mandan villages on the Missouri. The Shoshones told Lewis that they obtained their guns from the Crow Indians on the Yellowstone, who often traded with the Mandans and Hidatsas.

ANCIENT TRAILS

The trail across Lemhi Pass was the first of many tribal roads that Lewis and Clark would follow in the months to come. In several cases they were escorted by Shoshone or Nez Perce guides, whose judgment and knowledge proved indispensable to the success of the Expedition. Since the trails conformed to the geography of the landscape, it is only natural that many of today's highways flow along the ancient tribal routes.

The Road To The Buffalo

"These people now informed me that the road which they shewed me would lead us to a river

they called Cokahlarishkit, or the River of the Road to Buffalo and thence to medicine river and the Falls of the Missouri." Lewis, July 3, 1806

Lolo Pass

"All the nations on the west side of the mountain with whom we are acquainted inhabiting the waters of Lewis's river & who visit the plains of the Missouri pass by this route." Lewis, July 4, 1806

Gibbons Pass

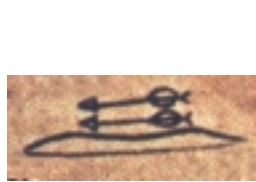
"The buffalo and the Indians always have the best route, and here both were joined." Clark, July 6, 1806

Travelers Rest to Camp Fortunate

"The road which we have traveled from travelers rest Creek to this place an excellent road. and with only a few trees being cut out of the way would be an excellent waggon road." Clark, July 8, 1806

Glimpse into the past

What graphics and artwork are most effective in expressing your story?





THE GREAT CLEARING

In early September of 1805, a large band of Salish Indians was camped in a cove in the upper Bitterroot Valley that they called the Great Clearing. According to tribal oral traditions, a chief named Three Eagles was out scouting the surrounding area one morning when he spotted a group of about twenty strangers with pack horses. These people wore no blankets, which greatly puzzled the chief. He noticed that they traveled slowly and with no effort at concealment, from which he deduced that they were not a raiding party. Their hair was cut short, a sign of mourning. There was one man in the party with a black face. Chief Three Eagles decided that he must have painted his face for war and that his party was returning from a fight in which they had lost all their blankets.

The chief returned to his camp to alert his people, and when the strangers arrived they were greeted hospitably. The Salish brought buffalo hides for the new arrivals to sit on, and buffalo robes

to cover their shoulders. The two leaders of the strange party offered a new kind of tobacco to smoke, but it was so strong that the Indians all began to cough. They mixed some

kinnickinnick with the tobacco, which improved its flavor immensely. Dried meat was brought to the men to eat, but they seemed to think it was bark or wood.

A Bigger Story

Which concepts and information would you draw from this story to develop sign text ?



Charles Russell, Lewis and Clark meeting the Flatheads in Ross' Hole



Glimpse into the past

What graphics and artwork are most effective in expressing your story?

PIPE OF PEACE

“those people recved us friendly, threw white robes over our shoulders & Smoked in the pipes of peace...”
(Clark, September 4, 1805)

When Lewis and Clark rode into the valley now known as Ross Hole on the morning of September 4, they had just made an arduous mountain crossing and were tired and hungry. Clark recorded that the people camped there called themselves Oat la shoots and consisted of thirty-three lodges and about four hundred family members. During the two days that the Americans spent at their camp, the Oat la shoots brought them berries and roots to eat and gave them gifts of bad-

ger, otter, mountain goat, and antelope skins. In turn, Lewis and Clark gave peace medals, tobacco, and “a few Small articles” to four chiefs. They also noted that the tribe possessed “ellegant” horses in great abundance, and the captains were able to purchase thirteen horses and exchanged several of their inferior mounts for a “fiew articles of merchendize.” After smoking and talking for two days, the Americans rode north on their new mounts toward the Lolo Trail, while the Oat la shoots headed south to rendezvous with the Shoshones at the Three Forks of the Missouri for their annual buffalo hunt.

SEVERAL LANGUAGES

“we assembled the Chiefs & warriors and Spoke to them (with much difiiculty as what we Said had to pass through Several langujes...” (Clark, September 5, 1805)

The “several languages” through which the two parties’ words had to pass to each other were five in number. The Oat la shoots spoke a Salish language, from a different linguistic family than the Shoshone, so neither Sacajawea nor the Shoshone guide Old Toby was able to understand them. By chance there was a Shoshone boy living with the Oat la shoots who knew both languages, and he was able to translate from the Oat la shoots to Sacajawea, who then converted Shoshone words into Hidatsa for Charbonneau, who transferred a French word to the French-Canadian boatman Labiche, who delivered the English translation to Lewis & Clark. Before their departure, Lewis used this translation chain to record a brief vocabulary of the Oat la shoot language.



✓ **POMPEY'S TOWER**

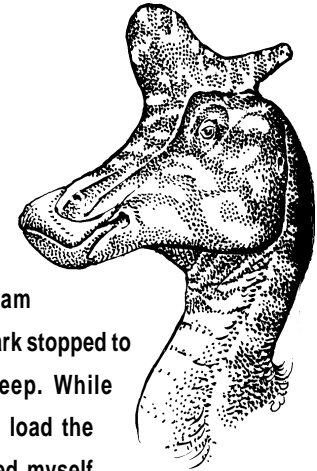
On July 25, 1806, on their way home from the Pacific, Captain Clark and his party were floating down the Yellowstone River in two dugout canoes when they noticed "a remarkable rock...200 feet high" on the southern shore. They landed and climbed a perpendicular cliff to find themselves standing on top of a sandstone tower with extensive views in all directions. Crow Indians called this landmark "The Mountain Lion's Home," and their legends tell of how the pillar was once attached to the bluffs to the north until it broke loose and rolled across the river to stand alone.

Clark named the monolith "Pompy's Tower," presumably after Sacajawea's young son Jean Baptiste, whom he called Pomp. Noting that Indians had made two piles of stone atop the tower and had engraved the figures of animals along one face, Clark etched his own name and date nearby. Although Clark was the first white man to leave an autograph in the tower's sandstone face, he was not the first to visit it. Almost a year earlier, in September of 1805, a French trader named Francois-Antoine Larocque had explored the Yellowstone and described a "whitish perpendicular rock on which was sketched in red soil a battle between three people on horseback and three others on foot."



THE RIB OF A FISH

A few miles downstream from Pompy's Tower, Clark stopped to shoot two bighorn sheep. While waiting for his men to load the carcasses, he "employed myself in getting pieces of the rib of a fish which was Semented within the face of the rock. this rib is 3 feet in length tho a part of the end appears to have been broken off." He knew that this fossil would be of great interest to Thomas Jefferson, who had instructed his captains to look for the remains of animals "that may be deemed rare or extinct." Jefferson was thinking of mammoth bones like those that had been found in Virginia, but he had no concept of the creature whose rib Clark scratched from the eroded bluff.



The cliff where Clark was digging belonged to a sandstone formation laid down about one hundred million years ago during the Cretaceous Period, also known as the Age of the Dinosaurs. The bone he extracted probably belonged to a large land dinosaur such as Hadrosaurus, Triceratops, or Tyrannosaurus, all of whom roamed the primordial landscape of eastern Montana.

A Bigger Story

Which concepts and information would you draw from this story to develop sign text ?

THE SAGA OF SERGEANT PRYOR

At midmorning on July 24, 1806, Clark and his party arrived at the mouth of a river they named Clarks Fork of the Yellowstone. Here they bade farewell to Sergeant Pryor and three men who were to herd the expedition's remaining horses overland from this point to the Mandan villages on the Missouri. As they were about to depart, Clark noticed that one of the men was almost naked, so he gave him a shirt, a pair of leather leggings, and three pairs of moccasins.

Sergeant Pryor and his men proceeded through the plains along the south side of the Yellowstone, but progress was slow. Their horses had been purchased from the Nez Perce, who had trained them to chase and cut buffalo, and every time they encountered a bison herd, the unsaddled horses would take off in hot pursuit. The second night out, the small party camped on the grassy banks of a large creek. When they awoke the next morning, the horses were nowhere to be seen. In searching the area around the camp, they found human tracks leading to a collection of horse tracks that

showed where the horses had been caught and driven away. After pursuing the rustlers for several miles without success, Pryor and his men returned to their camp, packed their baggage on their backs, and walked overland to the Yellowstone, which they reached at the landmark of Pompey's Tower.

Finding that Clark had already passed downstream, they shot a buffalo and made two "bullboats" of the sort they had seen among the Mandans and Hidatsas. In these floating bowls

they "passed through the worst parts of the rapids & Shoals in the river without taking a drop of water." Despite being bitten by a wolf while he slept, Pryor was able to pilot the boats to the mouth of the Yellowstone and on down the Missouri, where he and his men caught up with Clark's party on the morning of August 8.

